THE

Journal of the American Medical Association.

EDITED UNDER THE DIRECTION OF THE BOARD OF TRUSTEES.

PUBLISHED WEEKLY.

VOL. XV. CHICAGO, AUGUST 23, 1890. No. 8.

ORIGINAL ARTICLES.

LYMPHOID HYPERTROPHY IN THE PHARYNGEAL VAULT.

Read in the Section of Laryngology and Otology, at the Forty-first Annual Meeting of the American Medical Association, held at Nashville, Tenn., May, 1890.

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It is seventeen years since Meyer, of Copenhagen, first wrote his paper on adenoid growths in the naso-pharynx. Since then the importance of the subject has grown constantly more apparent in explaining not only a set of symptoms directly dependent upon their presence, but in the understanding of a series of sequelæ and of subsequent local changes. Since then also there has been such an abundance of papers more or less complete that there is little left to be said except in a discussion of details.

The subject is, however, of such importance that some points in regard to it bear repetition. One of these, which has not been dwelt on so much in this country as abroad, is the pathological anatomy and the ultimate change of the lymphoid tissue. There are few who have had the opportunity of examining the post mortem appearances of either the healthy or the diseased naso-pharynx. The mutilation necessary to expose the cavity is a barrier to such investigations in the great majority of cases.

The vault of the normal naso-pharynx in the infant is a comparitively smooth walled cavity. There are described and usually found four folds or slight elevations of mucous membrane running longitudinally or obliquely of varying length and size. They are known as the lateral and median folds of the pharyngeal or third tonsil. Between these folds are slight depressions which have been called the lateral and the median recesses. This median recess was described in 1842 by Mayer, of Bonn, as a bursa, but Ganghofner and Schwabach claim that the latter when it exists is a pathological formation, while Tornwaldt and some of his followers have adopted the view of the earlier anatomist.[1]

This depression is most deeply marked where the vault joins the posterior wall, and by the projection of the heads of the Longus colli muscles is sometimes a quite deep recess. Such a one is shown in the colored plate taken from an article by Pœlchen, in a late number of Virchow's Archives, which I show you together with two specimens of the naso-pharynx of still-born children. I have lately seen a case in which the naso-pharynx presented much such a picture as that represented in the plate must have in life. The wet specimen has been hardening in alcohol and it is probable that the ridges and depressions have been largely smoothed out by the constringing action of the fluid. Nevertheless you can plainly see the median recess.

The mucous membrane in this locality is studded with the openings of tiny follicles leading to acinous glands. Hence Luschka has called this aggregation the pharyngeal tonsil. In childhood we have here a great richness of lymphatics. This lymphatic tissue is supported by trabeculæ of fibrous bands and is composed of a reticulum, as seen in thin sections, crowded with round lymph cells. This reticulum is however more apparent than real, being in fact the walls of lymph channels which when cut across in sections make a network. A fairly good understanding of this may be arrived at by cutting a thin cross section of a stalk of Indian corn. This naso-pharyngeal structure is almost exactly similar to that of the lymph glands, the lymph nodes in the intestines, and the collection of tissue between the faucial pillars known as the tonsils proper. The surface is covered with ciliated cylindrical epithelium and the structure of the rest of the mucous membrane differs in no way from that found in other parts of the body. Sir Andrew Clarke[2] stated twenty-five years ago that the secretion of the normal pharynx was capable of turning starch into sugar, and the statement has more lately been advanced that this lymphoid tissue instead of acting exclusively as absorbents pours lymph into the naso-pharynx, which mixes with the food as it is masticated and swallowed.

It is with this lymphoid tissue that we are concerned, for by its hypertrophy we have formed the so-called adenoid growths of the naso-pharynx. The word adenoid is a misleading term as

[1] For the literature and a short résumé of the subject see The Medical News, Sept. 7, 1889.

we naturally think of adenomata and of true tumors. Woakes calls them "Lymphoid pappilomata," which seems to me much more appropriate. They are represented and described in the text books as stalactite-like bodies hanging down from the vault and sides of the naso-pharynx like berries.

For the gross appearance this perhaps would be a good enough description, if we had the space washed clean of mucous and the membrane spread out before our eyes. As a matter of fact they are matted together partly by inflammation and partly by mucous, so that if confined to the vault they appear in the rhinoscopic mirror as a tolerably compact mass, and when extending along the sides and on the posterior wall they narrow the cavity and give a rough, uneven appearance to the mucous membrane. Their surface is reddish gray, the gray predominating where the masses are larger, as in the vault, while the lateral walls have a red and inflamed appearance. They are friable and bleed freely. The feeling imparted to the finger has been likened not very accurately, and certainly not very elegantly, to that of a mass of angle worms.

Pathogenic bacteria, streptococci and staphylococci flourish in the perverted and abundant secretions of the parts, and stand ready with the proper preparation of the tissues from "colds," to set up otitis media, lacunar and suppurative tonsillitis.

Hardened in alcohol, sections of this mass, stained double present a very characteristic appearance. Near the surface it is almost exclusively made up of the fine reticulum with cells more densely crowded together in some places than in others.

In the rather thick section which I have here, four or five of these lymph nodes can be seen arranged near together close under the epithelium which is here, as it is normally, composed of cylindrical ciliated cells. As the sections are made nearer to the base of the growth the fibrous trabeculæ become more abundant and in it here and there are numerous mucous glands and blood vessels. This appearance is to be seen in the larger sections. Numerous tiny loops of blood vessels dip down toward the apices of the mass, but none of any size are met with. Hence the hæmorrhage during operation though profuse at first is soon checked, the structure having but a small amount of fibrous tissue to hold the vessels open.

The lymphoid hypertrophy therefore of the pharyngeal tonsil is of the same nature as that of the faucial tonsils, the latter however having larger trabeculæ and more fibrous tissue.

Like the tonsils and like the lymphoid tissues elsewhere, as in the intestines atrophy begins in adult life, and as age advances we have less and less of it. When middle life is reached we have little or nothing left of previously enlarged pharyngeal and faucial tonsils but the fibrous tissue of the trabeculæ. It is probable that even this diminishes in bulk.

If in these hypertrophies we had nothing enlarged but the lymphoid elements, this absorption as age advances would leave us practically a normal pharynx; but as a matter of fact the fibroid or cicatricial tissue is left behind and interferes with the function of the mucous membrane. The mucous glands instead of pouring out the normal fluid mucus, become clogged with a semi-fluid tenacious secretion which clings to the surface, forming thick crusts by the evaporation of its scanty watery part before it can flow down the sides of the pharynx and be absorbed. This tenacious secretion acts as a constant source of irritation to the parts rendered still more susceptible to inflammation by the cicatricial tissue.

I have seen some cases in which this fibroid tissue was so abundant that it seemed to have formed a sort of false roof to the naso-pharynx connected to the true vault by loose and scanty connective tissue threads. By firm pressure with a stiff probe or with a red hot platinum point or with the end of the finger perforations can be made in it. Many of the post nasal cysts are doubtless of this character, the cicatricial tissue shutting off spaces which including a few mucous glands become filled with a glairy viscid, or a serous fluid. Bands and knots of cicatricial tissue analogous to that in burns of the neck, though of course on a much smaller scale, can occasionally be seen stretching across, and dotted about on various places of the pharyngeal vault. This I believe to be the history and course of these hypertrophies if left to themselves. While in by far the larger number of cases these growths undergo the absorptive changes mentioned between the ages of fifteen and twenty-five, they are occasionally met with after that age.

Chatellier[3] refers to a case in which he operated at forty-nine years of age. Delavan[4] asserts that lymphoid hypertrophy may begin in adult life. This I doubt very much indeed. It is probable that these are cases in which the tissue has previously existed without noticeable discomfort until some coryza or acute infectious disorder has set up the train of well known symptoms. Dr. J. Solis-Cohen[5] reports having seen an enlarged pharyngeal tonsil in a woman of seventy, which had never given rise to any symptoms. While I have frequently operated on pharyngeal "adenoids," between the ages of twenty and thirty, I have no recollection of ever having seen a case in which there was much lymphoid hypertrophy in the vault after this age.

[2] London Hospital Reports, 1864, quoted by Woakes.

[3] Maladies du pharynx nasal, des tumeurs adenoids, 1890.
[4] N. Y. Medical Journal, Oct. 12, 1887, p. 393.
[5] Journal of Laryngology and Rhinology, Feb. 1889, p. 3

It has been stated that these cases are occasionally congenital, and I have observed the growths in an infant a few months old.

They most frequently give rise to symptoms, between the ages of five and ten years. After that age the naso-pharynx begins to enlarge and grow away from the obstructing mass, on all sides, which of itself grows smaller.

As for the frequency of their occurrence, Meyer, out of 2,000 children, found them about one per cent. in Copenhagen. Here in New York, out of 2,000 children, Chappel[6] found sixty who suffered from adenoid growths, or 3 per cent. These figures were taken from various public institutions, and doubtless the proportion is not so great when we include the better classes.

It has been stated and many times repeated by the best observers, that these growths are the frequent cause of high arched palates, narrow jaws and crooked nasal septa. While they may have some slight influence in modifying the growth and development of the maxillary bones, I believe that in this respect they have mistaken the cause for the effect. Heredity is claimed by many as a predisposing cause. If we inherit naso-pharyngeal tumors, or hypertrophies from our progenitors, it is an anomaly and contrary to all conceptions of modern biological laws. We may inherit cells which are predisposed to proliferate, or cells which are of low degree of vitality, but we do not inherit tumors.

We know that there is an inherited tendency for the physiognomy of the child to resemble that of the parent in a general way. This means that the dimensions and shape of the bones of the skull tend to assume the ancestral type. We often see a peculiarly bent little finger running through several members of the family. We know that the negro race has broad cheek bones and low palates, and usually straight nasal septa, in contra-distinction to the prognathous type so frequent in the descendants of the old Iberians.

It is however, an undeniable fact, that lymphoid hypertrophy of the pharyngeal vault, is very much more common in the latter class. To my mind the explanation is tolerably clear. It is easier to get dust out of an obtuse angled corner, than out of an acute angled one, and applied to the pharyngeal vault (which is of course always narrow where the palate arch is) secretions are more apt to lodge in the narrow, high arches, than in the wide, low ones—and adherent secretions set up irritation. To still further prevent the flow of secretions, we have in these cases the narrow anterior nasal passages which do not permit as good a current of air to reach the post nasal space. The vibrating ciliated epithelium thus has greater obstacles to overcome constantly ; and in coryzas, with the narrowing of the angle from congestion and swelling of the mucous membrane, and with the stoppage of the air current, sometimes complete, through the anterior passages, the disadvantages of the narrow angles are at once apparent. This should give us a practical hint for treatment of the third stage of a coryza.

Irritation of the pharyngeal mucous membrane is, I believe, the immediate cause of this lymphoid hypertrophy. If we add to a high, narrow vault, as a local predisposing cause a constitution of low cellular vitality—the scrofulous diathesis of a former decade, with a tendency to enlargement of the lymphatic glandular structures everywhere, we have an ample explanation why these cases are more prone to so called adenoid vegetations.

On the other hand these phenomena, narrow vaults, poor constitutions and pharyngeal lymphoid hypertrophy do not always go hand in hand. In blooming, healthy, robust children, narrow pharyngeal vaults may give rise to vegetations, while even with wide vaults, scrofulous children frequently have them. They are rarely seen in robust children with low vaults.

The etiology of every disease is always more or less complex and post nasal hypertrophy is no exception.

The conditions of life under which we live, especially in cities, are very favorable to the frequent occurrence of coryzas and general inflammations of the upper air tract. Our absurdly heated houses put our constitutions to the severest tests. The halls as well as the living rooms are seldom below 75° F. In winter we step outside the door and the inspired air undergoes a change of 40° in temperature. It strikes a mucous membrane ennervated by 12 hours of equable high temperature. The muscular coats of the arterioles, the fibrils of the sensitive and sympathetic nerves are placed in the same predicament as the heart, lung, leg and arm muscles of the sedentary student who is suddenly called upon to run a race or engage in a wrestling match with an athlete. We know the results in both cases.

Ethnographical research, always interesting, would be especially so to us if investigations could be made as to the condition of the naso-pharynx in the American Indian, and the Central African negro. They have no hot air or steam heating furnaces in their huts, and they do not live in the dust of an American city. The difference in temperature between the warm sun and the cool shade is enough to accustom their vaso-motor nervous systems to more decided changes of temperature.

It is probable that when primeval man tore the flesh from the bones of his prey with his teeth, and the individuals of weak constitution perished in early yonth, or early manhood, a properly developed superior maxilla was as necessary for existence as were other physical perfections. Un-

[6] Am Journal Med. Sciences, Feb. 1889, p. 148.

der these conditions we should expect to find a normal naso-pharynx.

It was once asserted that cases of adenoids were confined to the damp, cold localities of the northern seaboards. They are probably much more common in this locality than far inland. They are more common in cities than in the country, one reason being perhaps that the throat specialist flourishes, *par excellence*, in cities. They follow the irritations set up by scarlet fever, diphtheria and measles. In fact anything which will set up persistent or often repeated irritation with the predisposing factors mentioned may be a direct cause.

It must be remembered that these tumors are of slow growth. They have usually existed a long time before the symptoms they cause become sufficiently marked to attract the attention of the child's guardian or of his medical attendant. The increase in size, which they attain from some acute and severe attack of coryza, from the pharyngeal inflammation of scarlet fever, or of measles, or of diphtheria, may cause it to appear that the condition has not previously existed. It must be a fact that they may exist even in considerable volume without ever giving rise to appreciable symptoms, as Dr. Cohen's case illustrates.

In the various papers on the subject so much has been said of the symptoms and sequelæ that further repetition would be tiresome and superfluous.

If you will observe the small cavity which makes up the naso-pharynx and posterior openings of the nostrils in the specimens from the still-born infants I have shown you, you can appreciate that a small mass of tissue would be capable of causing a good deal of obstruction.

Where the condition is suspected examination should at once be made, but this should only be undertaken in the absence of any unusual pharyngeal or nasal inflammation.

Dr. Delavan (*loc. cit.*) has reported a case in which hypertrophy of the pharyngeal tonsil was very apparent during attacks of coryza and pharyngeal inflammation, while in a state of quiescence the mass sank into comparative insignificance.

I have very frequently observed the same thing with these lymphoid growths. In one case which I had examined by digital exploration and had detected their undoubted presence, I made an appointment for an operation when the child should have recovered from a slight coryza she had at the time of examination. At the time appointed the child was etherized, and on introducing the finger into the naso-pharynx to hook forward the palate and locate the growths, I was astounded to find no trace of them beyond a little roughened feeling to the pharyngeal vault. The operation was postponed and a lesson learned.

In making an examination, if the examiner is accustomed to the use of the rhinoscopic mirror an attempt should always be made, whatever the age of the child, to use it. In a certain proportion of cases it is absolutely impossible for the most patient and experienced of examiners to succeed with the mirror.

Chatellier, in fifty patients, was able to make a diagnosis in forty-one, the youngest of whom was five and one-half, while in nine, the oldest of whom was 12½ years, digital examination was necessary. As far as my own experience goes, I should think the proportion was about the same, though I am sure, without having any distinct recollection of the fact, that I have succeeded at an earlier age than 5½.

Nevertheless in the child little more than their mere presence can be made out with the mirror. A mass of grayish-red tissue apparently springing from the posterior or lateral walls obstructs further view. When the child is anæsthetized for the operation is time enough to make out the extent and the situation of the growths. Digital examination is extremely uncomfortable for the little patients, and simply because they cannot express their feelings in the flowing and forcible language of the adult American, is no reason for sticking the index finger into the naso-pharynx. I know I am preaching what many of us, myself among the number, do not strictly practice, but in the hurry of a large dispensary clinic the requisite time and care cannot always be taken. The use of cocaine in the examination by mirror of the post-nasal space is of very uncertain effect. Occasionally it works like a charm, but more frequently it either has no effect at all in overcoming the reflex spasm, or, as often happens, it aggravates the irritable condition very much, sometimes producing intense retching and gagging, and renders the patients half frantic in their effort to get rid of the feeling of a foreign body in the throat which it produces. In the adult, posterior rhinoscopy, I believe, is nearly always possible to those accustomed to the use of the mirror.

Various forms of palate hooks have been invented. While some claim to be able to derive advantage from their use in examination, there are many who think them useless. In very tolerant patients who bear cocaine in their throats well, I have found the self-retaining one invented by White, of Richmond, of advantage in operating in the post-nasal space with the galvano cautery. For simple examinations they are superfluous, and it has been my experience that they are worse than useless in irritable throats, often causing uncontrollable gagging and vomiting.

In dealing with the question of operation it is necessary to divide the cases into two classes: those in whom general anæsthesia is neces-

sary, and those in whom simple cocainization is sufficient.

Practically, nearly all those of 12 years of age or under fall in the first class, while etherization is rarely if ever necessary after 15. Between these limits it depends on the patient's individual characteristics. A child will often allow easily enough the first introduction of the forceps, but rebels at all subsequent attempts, and unless one is sure of success it is best to use general anæsthesia at once—as without it many sittings are often necessary and children do not bear these well.

Moreover, in children the naso-pharynx is so small, that little is usually to be gained by the intermittent use of the mirror, while in the adult pharynx the view obtained is of the greatest importance.

If adenoid growths are accidentally discovered in a child's naso-pharynx, which give rise to no symptoms, it is best not to disturb them. They will nearly always be small in amount, and after atrophy in adolescence will probably leave behind no more cicatricial tissue than the operation itself would occasion. The child's guardian should be warned of their presence, and should any of the well-known symptoms of mouth-breathing, snoring at night, earache or deafness begin to appear surgical interference should at once be undertaken. The operation is a trifling one, the relief is nearly absolutely certain, and if left to themselves the sequelæ may be serious if not disastrous.

Nearly every operator has a method of his own when it is necessary to use an anæsthetic. Many use chloroform which is said to be less dangerous in children than in adults. Most operators produce complete anæsthesia. I believe this to be a mistake. There is always an early stage, that of primary anæsthesia, when pain and the reflexes are abolished for a few minutes, which is long enough to hook forward the soft palate with the finger, and with the post-nasal forceps thoroughly clear the post-nasal space. There is not then danger of blood and tissue getting into the larynx, the patient recovers more promptly, the bleeding is less, and the reaction slight. Immediately after the first growths have been severed, allowing the head of the patient to fall over the edge of the table will put it in the position of Howard, and allow the blood to pour out of the nostrils. This should only be resorted to for a few moments as the position causes pressure to be exerted on the anterior cervical veins which increases the amount of hæmorrhage. This is nearly always very trifling in itself, but when the patient is deeply anæsthetized blood flowing into the trachea has occasionally produced very alarming and frequently very annoying results.

Notwithstanding the usually prompt cessation of hæmorrhage, there are several cases on record where the bleeding was excessive. Delavan[7] (*loc. cit.*) has reported a few cases, and Woakes one or two. After cocaine anæsthesia in which three or four comparatively small pieces were removed from the naso-pharynx of a young lady, I have had very prolonged and profuse hæmorrhage. The patient lost considerably over a quart of blood, and it was finally necessary to introduce an absorbent cotton plug soaked in a solution of the nitrate of iron into the post-nasal space, which was effectual in checking the bleeding. In this case I had at a previous sitting removed a much larger piece without more than the usual amount of hæmorrhage.

Voltolini reported a death from a mass of the growths falling into the glottis, but such an accident with the cutting forceps and with the precautions I have mentioned, can be almost ruled out of the list of possibilities with partial anæsthesia.

I believe that the great majority of operators prefer some form of the post-nasal forceps, first used by Loewenberg and modified into different special patterns by nearly every laryngologist of note. The one devised by Gradle, of Chicago, has the advantage of a larger cutting surface, and thus more of the mass can be removed at the first grasp, which is a great advantage since the field of operation is afterward filled with blood and mucus, the detection and seizure of the remaining fragments much more difficult, even when the instrument is guided by the index finger.

The use of the finger-nail alone, or armed with a steel scraper, is only effective for small sessile growths, especially on the sides and posterior wall of the pharynx. I have found some of the various forms of curettes useful for this purpose.

It is probable that no operation is so thorough that all vestiges of the growths are removed at any one time. While desirable, this is not imperative, as when the blood supply is once broken up, small remaining fragments atrophy and become insignificant.

In older patients, who readily learn to control their faucial muscles, and their apprehensions, it is preferable, I believe, always to use a 10 per cent. solution of cocaine, which makes the parts insensible and allows the use of the mirror.

As before said, there is the greatest difference in the way patients bear cocaine in their throats. This is true not only in regard to reflex phenomena, but also as to the abolition of pain. Without cocaine, the pain is usually not so severe as to be unbearable; but with such a powerful agent in abolishing it altogether, there is no excuse but the idiosyncrasy of the patient for not using it. Two or three grasps of the forceps is usually all that can be made at one sitting, as the field of view becomes obscured in the post-nasal mirror,

[7] Cartaz (Arch. de Laryngol., etc., June, 1890) reports several others.

by blood. Small shreds and protuberances of tissue may be burned down with the cautery—and here, in tolerant patients, the palate retractor may be of service. A number of sittings, with a week or ten days between them, is frequently necessary before the post-nasal space is freed from the obstruction. A weak, warm carbolized douche may be gently used two or three times a day. For a day or two after an ether operation, the child should be confined to the house, and for several days longer some care should be exercised in preventing him catching cold. There is very little reaction after the operation. Older patients need rarely be confined to the house in good weather.

Occasionally, though very rarely, I have seen a previously quiescent otitis media light up after a post-nasal operation and give some trouble, but this always subsides under proper treatment.

In adult patients, it is a matter of fact which experience, some of it quite chagrining, has impressed upon me, that deafness having its origin in post-nasal trouble and its accompanying Eustatchian catarrh, is usually susceptible of only a very moderate degree of improvement, if it has existed any great length of time. The improvement in the local condition of the naso-pharynx nearly always ameliorates the aural trouble. Eustachian catarrh is, however, met with, and not infrequently where the naso-pharynx is comparatively healthy. Sunken drum membranes and ankylosis of the chain of bones are met with, in which there is neither naso-pharyngeal nor Eustachian trouble in activity. These have doubtless existed, and are the cause of the condition, but the subacute inflammation has subsided, leaving behind it more or less cicatricial change in the mucous membranes, which is of little moment. But the mechanical apparatus of the middle ear, more delicate in its structure and more highly specialized in function, has suffered irreparable damage.

Therefore, in adults with post-nasal obstruction and aural symptoms, we must give a guarded prognosis. We must have in mind the possible extent of pathological changes, and that depends, in a large degree, on the time the symptoms of Eustachian deafness have lasted. The results of post-nasal treatment in middle ear troubles are brilliant—so brilliant, in fact, that they have inflamed the imaginations and blinded the eyes of many otologists and rhinologists; but the stubborn facts remain, that a large proportion of these cases are incurable, and many of them susceptible of only a very moderate degree of improvement.

THE Honorary Degree of LL.D. has been conferred by Dartmouth College on Dr. Edward Cowles, the Superintendent of the McLean Asylum in Massachusetts.

REPORT OF FIFTEEN CASES OF PUERPERAL ECLAMPSIA.

Read in the Section of Obstetrics and Diseases of Women, at the Forty-first Annual Meeting of the American Medical Association, Nashville, Tenn., May, 1890.

BY JOHN G. MEACHEM, M.D.,
OF RACINE, WIS.

There is hardly a subject connected with obstetrics, or medical practice, that has been spoken and written upon so much as puerperal eclampsia, and yet the profession seems to be as unsettled in regard to its treatment, as it was forty years ago. One practitioner adheres to the long taught plan of bleeding by venesection, another pins his faith upon opium, chloral, chloroform, veratrum, etc. The first discards opiates and narcotics, as a rule, while the other would think it almost criminal to open a vein. Success has without doubt attended both modes of practice, but there are cases where the exclusive adoption of either, would prove disastrous. I propose to give to this Section the history of a number of cases, fifteen in all, that have come under my own observation and management, where venesection has been resorted to in all of them but one, and the favorable results will, I think, prove the great value that the remedy exercised in them.

Case 1.—Mrs. B., æt. 25 years, had not been in her usual health for several days. She was in her seventh month of pregnancy, but had passed over all the early symptoms of her condition, and for two or three months had been unusually well. She lived alone with her husband, who was a farmer on rather a small scale, and she had been in the habit of doing all the necessary work connected with her housekeeping, for her small family. She was sitting at table with her husband, when all at once, without any premonition or warning, she was seized with a terrible convulsion. I was immediately sent for, but as I resided about two miles from the patient, an hour must have elapsed before my arrival. I found her unconscious, but not in a convulsion, although she had had three before I saw her. Upon inquiring into her condition, I found it as just stated. A vaginal examination disclosed the fact that she was in labor, and advancing with considerable rapidity, and while I was making it, she went off into another convulsion, which continued until she was bled to the extent of 15 ozs. All turgescence of the head and neck, which was considerable, was at once relieved, and she was easy and quiet for an hour, when her labor was terminated naturally and without more convulsions. Her recovery was quite rapid.

Case 2.—Mrs. C., the wife of a prominent lawyer and Judge of Western New York, during her third confinement, at full term, was attacked with eclampsia. The family physician was a homœopath, and he had in consultation another of his school. She had had ten convulsions when I was

sent for. I found her totally unconscious, and far advanced in her labor, so that I was enabled to deliver with the forceps in a few minutes. She had some slight convulsions after, and died comatose in about two hours. She was not bled, as she was too far gone to expect any benefit from it, when I was first summoned to the case. Had I seen her early, I should certainly have taken 15 or 20 ozs. of blood, and would have expected recovery.

Case 3.—Mrs. A., a Norwegian by birth, a strong, powerful woman of 25 years of age. She had been in labor several hours, when she was seized with a very severe convulsion, which lasted until I took 20 ozs. of blood from her arm, which I found great difficulty in doing, on account of her unusual strength, used in an ungovernable manner. After the bleeding she quieted down, and I was enabled to deliver her with the forceps very soon, of an unusually large, vigorous child. She had no more convulsions, and exhibited no ill effects from the loss of the 20 ozs. of blood.

Case 4.—Mrs. B., æt. 30, a stout, fleshy woman, two days after her fourth confinement, was suddenly attacked with severe pain in the head, and a terrible convulsion soon followed, which was repeated again and again until six had occurred before I could get to the patient. Her face was purple and her breathing stertorous. A vein was opened as soon as possible, and a liberal quantity of blood abstracted, which had the effect of lessening the force and frequency of the paroxysms, but not of arresting them, nor did chloral and chloroform, which was afterwards used, for she died in a few hours in profound coma, the result of an extravasation of blood within the cranium, which doubtless occurred early in the case. I attended this patient in all her confinements, and they were easy and natural, and the last was the most rapid of them all.

Case 5.—Miss B., a large woman every way, about 20 years of age. She passed through the whole period of her gestation, without any member of her family suspecting her pregnancy. She suffered severely from "colic," as she said, during the whole of a night, and early in the morning was attacked with a convulsion. A physician of our city of considerable experience was called, but did not for a moment suspect that the spasms were connected with a puerperal state. After witnessing a few of them, he desired consultation, which was called, nor did the consultant have an idea of the nature of the case. The convulsions continued to recur in spite of all their treatment, until 12 o'clock M., when I was added to the consultation board. She was in a convulsion when I first entered the house—her face livid, almost black, and the blood-vessels of the head, face and neck turgid and distended to an extreme. She was totally unconscious, and the breathing was heavy and labored. Up to this time, not a suspicion of the true nature of the case had dawned upon the minds of her medical attendants, although both were experienced practitioners, and considered themselves well up in their profession; but the patient was unmarried, very large, always having a very full, prominent abdomen, and above suspicion of being capable of anything wrong. These were the misleading points, and most effectually did they work. When I asked if a vaginal examination had been made to ascertain if the uterus had anything to do in connection with the convulsions, I was promptly answered in the negative. I immediately instituted such an examination and, not to my astonishment, for I took in the situation at first sight, I found the head of a child low down in the pelvis, with the uterine os thoroughly dilated. A vein in the arm was opened and 20 ozs. of blood taken, and almost immediately after, the forceps were applied, and she was delivered of a fine large, but dead baby. She had no more convulsions and in a few hours recovered her consciousness, and at the end of two weeks, was as well as most women at that period after confinement. She had more than twenty convulsions.

Case 6.—Mrs. S., æt. 20 years, after having been in labor a few hours, with her first child, was seized with a severe convulsion. She was in the care of another physician, but as soon as the spasms came on, he made himself scarce, on pretense of going after medicines, instruments, etc. It was at 10 o'clock P.M., after waiting more than an hour for his return, during which time she had four convulsions, that my son and partner was sent for, and I soon joined him in attendance. At the time of our arrival she had had six spasms. A vaginal examination revealed a fair progress in her labor, but not sufficient advance to be able to apply the forceps. She was bled freely, and for an hour escaped further convulsions, when another came on. A few ozs. more blood was taken, when a second examination was made, and sufficient relaxation found to admit of the easy and safe application of the forceps, and she was delivered of a large, healthy boy. She had no more convulsions, and made an ordinarily rapid recovery.

Case 7.—Mrs. C., in confinement with her first child, although she had miscarried at three months more than a year and a half before. She had been in quite hard labor four or five hours, but on my arrival I found her making good progress. About an hour after, while sitting by her bed, I noticed a squinting of the eyes, and very soon she screamed out, "I cannot see. I am blind," and a most terrific convulsion immediately followed. As soon as I possibly could, I opened a vein, and took away 16 ozs. of blood. She came to herself, but complained of intense headache. Her labor pains continued irregularly for an hour, when her face became flushed, and a slight spasm recurred. A

few ounces more blood was taken, the forceps applied, and her labor ended. She had no more convulsions, and made the usual recovery.

Case 8.—Mrs. M., æt. 19 years, in labor with her first child. Was in the care of Dr. Meachem, Jr. (with myself in consultation), who had been with her some hours. There was nothing unusual about the case until eclampsia supervened, except, perhaps, a somewhat rigid os. She had been bled freely after the first convulsion, which greatly reduced the force of those that followed, and relaxed the uterus, so as to allow it to be emptied of its contents by the forceps without difficulty. She had three very light spasms after the birth of the child, but they were of no account and, although a somewhat delicate woman, she made as good and rapid recovery as the majority of parturients.

Case 9.—Mrs. M., æt. 26, sister of Case 6. She had a convulsion a few hours after the beginning of her labor, and a second came on while I was getting ready to bleed her. After copious depletion, she was delivered, with the aid of forceps, of a large, vigorous child. She had no more spasms. It was her first labor.

Case 10.—Mrs. L. was a short, stout-built woman, of 21 years of age. She was taken in labor at seven months' term. It was early in the evening, and at midnight I was sent for. She had had already five convulsions, as some little interval had elapsed from the time of their sending for me until I arrived, as I was elsewhere engaged at the time. I bled her freely, and terminated her labor with the forceps within half an hour. She had two slight convulsions subsequently, but that was all, and she recovered as soon as others and as well, not noticing the loss of blood in the least. One year after, I attended her again, when her labor was every way natural and rapid.

Case 11.—Mrs. S., æt. 30, had been in very hard labor twelve hours, and when the head was pressing hard upon the perineum, with every prospect that another hour would terminate it, she was seized with an unusually severe convulsion. I bled her as soon as I could, without regard to quantity, which relaxed her all that could be desired, so that without the least difficulty I applied the forceps and delivered. She had but one slight spasm following. This was her first and, so far, last labor.

Case 12.—Mrs. W., æt. 24, who had been in moderately hard labor a few hours. Her pains were not pressing, nor had she made much progress, when she was attacked with convulsions. The first was not severe, but while preparations were being made for bleeding, she passed into a second, which was violent and protracted. As soon as possible, a vein was opened, and a pint of blood taken. The child was born naturally after four hours. The arm was re-corded, and a few ounces of blood taken twice, after the large bleeding, when symptoms of spasms seemed to be returning. None, however, came, as they were averted by this means.

Case 13.—Mrs. B., 20 years of age, was attacked with eclampsia just as the head emerged through the externals, after a labor of several hours. She had a succession of five convulsions, but after a liberal bleeding, no more occurred. It was her first confinement. She recovered quickly and well.

Case 14.—Mrs. M., æt. 23. Her first child. Her labor was natural, but protracted, on account of the child being out of proportion to the size of the mother. A few moments after delivery, she was seized with a convulsion of unusual severity. She was short, thick-set, and very plethoric. She was at once copiously bled, which prevented a recurrence of the spasms.

Case 15.—Mrs. S., æt. 25 years. Had been a teacher in our public schools for some years, was a second wife, and had been married not quite a year. She was short in stature, thick-set, and very strong. She had been in labor twelve hours, being attended by a very intelligent midwife, and everything seemed to be progressing favorably, and naturally, and hope was extended to her that she would soon be relieved, and be a mother; but without warning, she was seized with eclampsia. I was in attendance in half an hour, and she was then in her third fit. As soon as I possibly could, I bled her 15 to 20 ozs., and then found that I could apply my forceps, which I did, and delivered her of a 9-lb. child. She was unconscious after, for two hours, and not for many hours could she realize that she had been confined. She recovered as rapidly as though her labor had been unattended with the convulsions.

Out of these fifteen cases, but two deaths occurred, and they were from apoplexy, the mischief in Case 4, being accomplished with the first convulsion. There was more or less bloating in every case, but not one furnished the opportunity for an examination of the urine before labor. In both fatal cases the bloating was very marked. Fourteen out of the fifteen patients were bled, and all but one recovered. Most of them had no convulsions after the first bleeding, and in those where they did recur, were greatly moderated in force and frequency. That the bleedings aided greatly in permitting an earlier application of the forceps, thus enabling us to sooner deliver, I am confident; and the great importance of this procedure I think few obstetricians question at the present time.

Dr. Meigs says, that the first thing to be done in these cases (referring to eclampsia), is to remove the cause by delivery, and the second to moderate the effect by venesection and evacuants; but my own experience is just the reverse. Bleed first, and deliver afterwards, as few cases will al-

low the application of the forceps until some relaxing means has been first resorted to.

Leishman says, that uterine action is much more likely to be the effect, than the cause of eclampsia, to which sentiment I cannot subscribe, for all of my cases, with one exception, were preceded by labor pains, and labor was not the result of convulsions. Many cases of eclampsia could be prevented, if the opportunity for treatment was afforded a few weeks before labor; but the majority of cases are not seen by the physician until he is called to attend them at parturition.

Timely and appropriate treatment, could it have been had, would doubtless have saved some of my patients much suffering and great danger. The lesson to be drawn from the history of these cases is, to bleed liberally and deliver early; that is, as soon as sufficient relaxation will safely allow the application of the forceps. If urea be the cause in a majority of the cases of puerperal convulsions, certainly a sudden abstraction of a quantity of blood is the quickest way to relieve the system of it, and observation has convinced me that delicate patients endure the loss of considerable blood without weakening very much under it—from the fact, probably, that a large quantity of poison has departed with the blood, which before had been a source of depression and mischief, and if congestion of any part, has anything to do in causing eclampsia, certainly nothing would act so promptly and so surely as venesection in relieving it.

DISEASES OF FEMALE PELVIC ORGANS.

WHEN TO OPERATE BY ABDOMINAL SECTION.

Read in the Section of Obstetrics and Diseases of Women at the Forty-first Annual Meeting of the American Medical Association, held in Nashville, Tenn., May, 1890.

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In accepting the kindly request sent me by the President of this Section of the American Medical Association, to read a paper on "some subject connected with Abdominal Surgery" on this occasion, I was not in the least unmindful of my unfitness for such a task.

I have but one special reason for attempting to appear before you with a few remarks based upon the above title. I thought a paper on this subject from a *Kansan* might be a "novelty," in view of the fact that most of the papers which will be presented for your consideration, will come, (and justly), from eminent men residing in the great medical centres.

The mass of physicians seem to have a very imperfect understanding of pelvic diseases. "Pelvic cellulitis" as taught in the past, and understood by many at the present time, has had to bear the opprobrium of every abnormal condition of the female pelvic organs. It is the natural result of the teachings of most of the authors on pelvic affections.

It would not require a very elastic imagination to conclude that some of the authors on diseases of women have never seen the inside of a diseased pelvis, judging them by their descriptions of the pathology of pelvic cellulitis, peri-uterine cellulitis, pelvic abscesses, etc. I cannot say that there is no such a condition known, as general pelvic inflammation, but I do not believe such conditions are found present in any case, as a *primary affection*. In other words, the intermediate or cellular tissues, are not primarily ever the seat of disease, of sufficient gravity to cause abscess.

There is no possible way for the pelvic organs to become diseased, except it be by transmission from without in, and that through the only channel known to anatomists, via vagina, uterus and Fallopian tubes. If this is a true statement, what can cause an inflammation of the pelvic organs, (barring violent traumatism), except it be by transmission of the germs by the route just mentioned?

To those who are familiar with the minute anatomy of the tubes, it is but natural to expect that the tubes would imbibe the greatest virulence of the poison in its passage through the narrow lumen of these organs, and thus become first diseased.

It seems to me, therefore, entirely within the bounds of propriety, to say in this connection that the pathology of pelvic diseases has not been understood by the writers of our books on diseases of women. The question then is, what are the morbid conditions in cases of pelvic diseases? Numerous, indeed, may be the complications. There may be ovarian cysts, parovarian cysts, abscess of ovary, abscess of the broad ligaments, hæmatocele of the broad ligaments, hydrosalpinx, ectopic pregnancy, etc.

All of these pathological conditions have been the rounds of the whole world under the title of pelvic cellulitis, and these are the abnormalities, one or more of which will be found in every case of so-called pelvic inflammation.

It is not my purpose to dwell upon the diagnostic symptoms of pelvic diseases. To attempt to do so would prolong this paper beyond the limits of propriety. It will be subsequently necessary, however, to make mention of some of the symptoms, in order to draw the line between operative and non-operative cases. This brings me to consider briefly the second section of my title: namely, when to operate by abdominal section.

This is the most important question now before the surgical profession. It is a question which must be answered (except in a general way), by each operator for himself, when brought face to face with his patient. A thorough discussion of

this great question will be invaluable to all interested. There are so many different elements to be considered in each individual case, that it is painfully difficult to always know how to decide. The personal application of the *golden rule* will materially assist the surgeon in his conclusions.

In deciding upon any grave operation, the surgeon ought always to exchange places, as it were, with his patient, especially when the operation is to be done to relieve pain, rather than to save life. Is it not more natural for the surgeon to reason thus: "Well she might as well be dead as alive, for life is a burden to herself, and she a great care on her friends." To the patient, the surgeon says, "your health, as you well know, has been and is now most miserable; you cannot ever enjoy life in your present condition, and an operation will, if successful, make you perfectly well; you have a good chance for health, although you might die."

Should she not embrace this only chance of health, with the reasonable certainty that she will survive the ordeal, when in the hands of trained abdominal surgeons?

I answer, yes. In my judgment, she ought, but she must be allowed her own choice. Suppose she says: "No, doctor, I cannot quite make up my mind to risk my life on the altar of an uncertain promise of surviving the operation, and still more, the possibility that something now unseen, may occur to prevent my permanent recovery, when I already have a reasonable certainty that I will live for years—of course, not in health—but at least exist without an operation. However, doctor, if after a careful analysis of my case, you, my friend and physician, aye, more than that, an expert in cases like mine, unhesitatingly advise me to have the operation performed, I will abide by your judgment and submit willingly." The foregoing is a homely, but *true* picture of many cases in the experience of every physician practicing gynecology. What shall our decision be? Is this not a trying position to be placed in? It seems to me that no honest, conscientious surgeon, could treat lightly such a responsibility. Of one thing I am seriously impressed: namely, no *monied* consideration should be allowed to enter into the reckoning, when human life is in the balance. I cannot better express my thought in this connection than to refer you to the words of a young English officer, by name DeLisle.

When he was a midshipman of 16, a storm occurred during his watch, in which a mast was swept away. The captain came on deck in a fury. "Why did you not send up a man to reef the sail? he demanded of the boy. "I should have lost my own life if I had gone to reef it," was the reply, "and I will not send one of the crew where I dared not go myself. A mast is not worth as much as a man's life." We must not be influenced in our decision by any consideration of personal gain, either directly or indirectly. It is our bounden duty to place ourselves in the position of the patient, and then, with our knowledge of the benefits to be obtained, the risks to be taken, the value of life to us, even though we are not well; if, in view of all the facts, we can say to the patient, yes, if I were you, I would have the operation performed, we can then be certain of a clear conscience, and this will give us that true, genuine courage, which every physician should possess.

It is not always necessary to make the decision for the patient. Often, indeed, do we find women who have suffered so much and so long, from many physicians of every creed, women who have been subjected to every known method of treatment, cervical dilatation, cervical applications, vaginal paintings, vaginal douches of hot water, curetting of the endometrium, applications introduced into the cavity of the uterus by means of spray syringes and uterine applicators, the use of galvanism and faradism, in every known manner yet discovered by an ever busy army of experimenters in this wileful art, and still she is a great sufferer, always in pain, too weak to be of any service to herself, and no aid to her family; cannot enjoy society at home or abroad, for she is suffering from constant fear of recurring spells; really attacks of local peritonitis, and perhaps not unfrequently of general peritonitis, which forces her to take her bed, and there remain for days and weeks, only to suffer the same experience before she has nearly recovered from the former attack. If she has not been so unfortunate as just pictured, perhaps she has suffered from one or more miscarriages, from which she had not fully recovered before she was exposed, either to the influence of germs, which invaded the uterine cavity and then the tubes, causing tubal infection, into that abiding place, "from whose bourne" no microbe ever returns, thus causing the symptoms and conditions, which in the other cases were brought about by too much of unsurgical and unmedical interference. Or, it may be the unfortunate patient has been exposed to that most dreadful disease, the greatest curse to womenkind, gonorrhœa, and this specific poison has been transmitted to the tubes, which is almost certain to occur, setting up an inflammatory condition, more destructive than all others, and which cause untold suffering.

These are the classes of cases that will be always ready for anything which promises them a reasonable certainty of relief from their suffering, and they will assume all the risks.

All that they will require is that the surgeon be a skillful operator, and be able to give them the benefit of modern surgery. What course shall we pursue when this class of cases present

themselves for treatment? They should first be prepared for an examination. This is of greater importance than it may seem on first thought. I have yet to see one patient, who was complaining of pelvic trouble, but who needed a thorough evacuation of the contents of the bowels before an accurate diagnosis could be made.

First, then, administer a saline cathartic, and request the patient to report again in twenty-four or forty-eight hours. If upon examination you find the uterine appendages diseased, with a decided enlargement on one side, or both, and the uterus fixed and bound by bands of adhesions, much tenderness and pain, even when care is exercised in the bimanual manipulations, (and it is only by the light, gentle touch, that a correct diagnosis can be made), with a history of irregular and painful menstruation, especially when the pain comes on a day or two before the discharge; great prostration when obliged to stand erect or walk; frequent micturition, often amounting to a decided vesical irritation, and urethral tenesmus; we can be reasonably certain of tubal disease, but to differentiate the exact condition will not always be possible.

The fact being once established that there is chronic salpingitis, with distended tubes, filled with serum or pus, an abdominal section, and the removal of the uterine appendages is the only means by which a cure can be promised.

At this point it was my intention to say something regarding the use of electricity in the treatment of these affections, but I will not impose on your indulgence to say more than this: I do not believe any case of tubal disease, where there are pus pockets and occlusion of the lumen, was ever cured or ever benefitted by the use of electricity. It is quite unreasonable to expect such remedies to do within the body, that which they cannot do on the outside.

In regard to the necessity for abdominal section, in any given case, as above described, it is always best, when possible, to place the patient on saline medication, used daily, with bitter tonics, and recommend good nutritious food, great care from exposure to inclement weather, rest in bed during menstruation, and carefully watch the case noting the improvement, if any, thus giving your patient all the opportunity possible to get along without surgical interference. The daily administration of small doses of sulphate of magnesia, will keep women quite comfortable even though they have been suffering for months from engorgement of the pelvic organs. If the patient does not make permanent improvement under this treatment, nothing will be gained by postponing the operation. Two important features are connected with this plan of procedure. The first is, you prepare the patient for the operation, if it is found necessary; and second, when there is some doubt as to the propriety of an operation, it keeps the patient under your observation until you have time for reflection, and to watch the symptoms. In some cases an operation may be thus postponed for an indefinite time, and in others, the necessity for immediate interference will be emphasized.

My friend, Dr. Joseph Price, of Philadelphia, has reduced this question to a science. His method is, "never to operate for pain alone, but only to save life."

When patients come to the surgeon from some distant place, much more difficult will it be to decide as to the proper course. Even with these cases, a few days of preliminary treatment as before described, under the immediate charge of the surgeon, will help to clear away any doubt, and give the patient the benefit she is entitled to.

There are, of course, many cases whose symptoms point so positively to serious trouble, that there remains but one course to pursue; namely, operate as soon as possible. There is a *moral* question which must not be lost sight of in the discussion of this subject. It seems to me, all other conditions being equal, we are bound to postpone surgical interference on unmarried girls, who are likely to marry and bear children, and also when the patient is a young married women, who ought to bear children, if possible. I am of the opinion that it is rare, indeed, for this class of cases to become pregnant, but inasmuch as it is possible for them to conceive, if the ovaries and tubes are not entirely diseased, they should have the benefit of the one chance in many, if the chances of waiting are not too hazardous. How often, indeed, is it true that women lose their lives because of procrastination, in deciding on the course of treatment. It is the plain duty of the patient to share with the surgeon the responsibility of waiting, if she desires to do so, after she has been informed of the great risks which she has to take by postponing the operation, when the case is clear that she has no other chance of regaining her health, and that in place of improving, she is certain to get worse, and liable to a fatal peritonitis at any time.

Finally, the consummate skill of the surgeon must be exercised in any operation on diseased pelvic organs.

If we have had the training which the gravity of the operation demands, we will learn one thing better than all others, to-wit, that it is not *true bravery* which impels a surgeon, without having first been trained in the modern methods of successful abdominal surgery, to recklessly operate on these cases. It is on the contrary *foolhardy* pluck, the result of a determination not to be outdone by others, and indicating a lack of appreciation regarding the difficulties and dangers of these operations. Success is obtained only by the most careful painstaking in every case. Every step of the operation must be perfect, if

we expect uniform results. The fact that the surgeon has had a large number of successful cases, is no reason why he should become careless, or neglect the little points in a single one of his operations.

The poet has expressed my views of surgical bravery in the following lines:

"Be bold, be bold, and everywhere, be bold!
Be not too bold! Yet better the excess
Than the defect; better the more than the less!
Better like Hector, in the field to die,
Than like a perfumed Paris, turn and fly."

GASTRO-HEPATIC FEVER.

Read in the Section of Practice of Medicine at the Forty first Annual Meeting of the American Medical Association, held in Nashville, Tenn., May, 1880.

BY THOS. LEGARÉ, M.D.,
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The subject of fever has engaged the attention of medical men for many centuries. Some of the most able minds of every age have employed their powers in the examination of this important matter, and have endeavored to hand down to posterity the result of their observations and reflections. But what was practical knowledge to them, has been too often anything but knowledge to those who have endeavored to study and understand their works. We may take two cases of fever, uulike in cause, in tendency to favorable or unfavorable termination, and widely differing as to medical appliances necessary to produce a favorable result, and yet there may be such sameness in their general and even particular characteristics, that he who can make Nature breathe in every line, may find it difficult to write a description such that one may readily be distinguished from the other, even by men highly skilled in book reading and book making. Hence, my few imperfect observations as made in Charleston, S. C.

Few months pass, in which I have not been called to attend this fever, to which I have given the name gastro-hepatic. This name I will beg leave to apply to my remarks upon this malady, promising that, worthless as they may be, they are entirely my own, and correct so far as I can transcribe the book of Nature from which they were drawn.

Gastro-hepatic fever may be divided into three varieties:

1. A regular remittent, rapidly running into, or assuming a continued form.

2. A continued fever from the commencement, in which all the prominent departures from health are discoverable in the stomach and liver.

3. All the manifestations of disease are made known, in a great measure, through the nervous system. Here let me observe, however clear in the beginning the propriety or practical utility of dividing this fever into different varieties, it becomes less and less apparent as the disease advances, and at the end of the first week, or thereabouts, we often find it very difficult, even by most minute examination of the symptoms then present, to determine to what variety the case belonged in its commencement; the varieties are disposed to run one into another, and become blended together, but this is less true with regard to the third, than the first two.

Gastro hepatic fever may also be divided into three stages:

The first is the premonitory or forming stage, and includes a period of time very difficult to fix, as it may vary from a few hours to as many weeks.

The second includes about the first seven days after the patient is fully under the influence of the disease; it is the stage where high vascular excitement may be present, and in it active purgatives are not absolutely forbidden.

The third is marked by exhausting diarrhœa, and general prostration of the vital powers; it runs from about the seventh to about the ninth day after the disease is fully developed, at which time we may expect the sudaminal eruption, discharge of blood from the bowels, and swelling of the parotid glands, all of which I have been led to consider as critical.

There is no constant mode in which gastro-hepatic fever assaults its victim. In one instance it advances almost imperceptibly, the patient being unable to fix the time when he grew unwell, or to trace his indisposition to any probable exciting cause. In another case the attack is sudden, or the patient can readily fix the day when he grew sick, and charges his illness to a fox hunt, to swimming a creek, being out in a heavy rain, or to some excess, severe fatigue, or exposure to great heat or cold.

The symptoms in the first or forming stage, in the first variety, when such attacks are preceded by any indisposition, are very similar to those which I will presently enumerate as occurring in the second, but commonly of shorter duration. More frequently, however, we have, in the very commencement, a full-formed chill, followed by a remittent fever of the tertian type. The characteristics of remittent fever begin to disappear about the third day, and (nine times out of ten) before the fifth or sixth they are no longer discoverable, and we have in our hands an unquestionable case of gastro-hepatic fever. The tip and edge of the tongue, in the commencement, usually present the appearance of a red, or, in cases of great prostration of the vital powers, a pale red hue, the centre being a dirty ashy or dish-clout color, without papillæ.

In the second variety the patient is sometimes seized when in good health, generally, if not always, in the evening, with a slight creeping

coldness extending up and down the back, not amounting to rigor. Headache, pain in the back and extremities, warmth of skin, disturbed pulse, and all the symptoms that usually accompany increased arterial tension, supervene, though most commonly these symptoms are preceded for some days, perhaps a week or even a longer time, by more or less indisposition, consisting in slight headache, some pain in the loins and lower extremities, a general feeling of lassitude or weakness, irregular appetite, and sleep often disturbed and never refreshing. The common, but by no means constant appearance of the tongue in the commencement of this variety, is a red tip and edge, fading into a rather dense white fur, from which shoot out large red papillæ not unlike those seen in scarlet fever.

In the first and second varieties, more than in the third, we should apprehend sudden and dangerous congestions of the internal organs in the earlier stages, to which under my observation the brain has been most liable.

It would be very difficult to give any description of the way in which the fever assaults its victim in the third or nervous variety, or to fix the day or even the week in which the system first began to be affected. For one, two, or three weeks, or perhaps a longer period, the patient will complain of slight but gradually increasing headache; pains in the loins, arms, legs, and almost every part of the body; lassitude and want of ability to pursue any physical or mental labor; disturbed and unrefreshing sleep; irregular appetite for food, and much impairment of the digestive function. To these may be added some pain in the bowels (I have seen a number of cases ushered in by violent attacks of colic), slight diarrhœa, and sometimes, though rarely, constipation.

On close examination, will often be found—what the patient is at first disposed to deny—that the urinary function is about as poorly performed as that of the digestive. Sometimes one or more, and again all, or nearly all, of these departures from health are present. In the white man, the skin is disposed to assume a dingy hue, and in the negro, a whitish ashy color.

From day to day the patient grows more and more emaciated, till at last, from general weakness, (if not from any local cause), he is forced to confine himself to bed. His inclination is to lie on his back from the first day. Up to this time, the pulse is but little disturbed, save a peculiar quickness which is never absent, and in most cases, some increase of frequency in the evening, accompanied by a skin (especially on the body and head), rather too warm for health. The tongue presents a variety of appearances; at one time it is large and relaxed, making a mouthful, its surface being covered with a white—or rather yellowish-white—fur, through which peep forth many enlarged papillæ. At other times it is dense and thin, now and then cupped, tip and edge red, centre furred and studded with scarlet-fever-like papillæ; and again it is clean and very red, and occasionally almost smooth as glass—but this last is most likely to be the case where drastic purgatives or some improper medicine or diet have been indulged in; however, in the majority of cases the tongue presents no material departure from health. I have seen the pulse stand for days as low as 30, and for an equal period, in another case, its frequency would be 103; it is almost always more frequent in the evening. At one time it will be found full, bounding and incompressible, or jerking and vibratory; in the next case, perhaps, will be voluminous, gaseous, and very compressible; and, lastly, will be met a case where, from the commencement to the termination of the disease, the pulse will show but little disposition to vary from that of health.

Headache, buzzing in the ears, dangerous congestion of the brain, bleeding from the nose, stupor or watchfulness, low muttering delirium, and every degree of mental derangement, from slight errors of perception to varying madness, may be seen when this disease is prevailing.

The eye may be brilliant or dull. There is a peculiar appearance of the eye, perhaps best expressed by the phrase, "physical glare," that tells of neither thought nor feeling, always occurring after the eighth or tenth day, which is most unfavorable. The appearance that I would describe differs from that which is vulgarly called the "death stare," and may precede death by some eight or ten days. There is a peculiar expression of the face that says as plainly as countenance can speak: "I don't know where I am;" and yet the patient is nothing concerned because he cannot fix his whereabouts.

Hæmorrhage from the nose is not uncommon, and in the earlier stages is sometimes productive of good; in the latter stages it is always a cause for alarm. Hæmorrhage from the gums also is not infrequent; but has never given me much trouble.

Deglutition is sometimes very difficult, and when altogether suspended, as I have found in many cases, is a grave, but not always a fatal symptom.

This disease, under my observation, has sometimes been complicated with inflammation in the right lung, but I have never observed this condition to obtain in the left. And every case is more liable to the cough so common to the advanced stages of protracted fevers where there is great prostration of the vital powers.

Again, there is an eruption that I have found rarely absent, to which authors have given the name of sudamina. In the vast majority of cases, the skin is dry throughout the whole

course of the disease, and in some, and even fatal cases where the diarrhœa had not been considerable, the patient lost but little of the round and plump appearance of health, and this, even where the fatal termination had been delayed to the tenth day; and upon the other hand, the most emaciated beings that I have ever seen, either dead or alive, have been in protracted cases of this disease which terminated favorably; and what is worthy of remark, whilst this extreme emaciation obtained over the body and extremities, the face, and face alone, would be round and full, being somewhat dropsical.

Nausea, vomiting, pain, and occasionally great thirst, we always have; there is always a loathing to food. Grave hepatic symptoms are present in all cases; the function of the liver is feebly or irregularly performed, and a strict examination will occasionally detect slight, and still more rarely considerable, enlargement of this organ. The spleen also is always more or less enlarged, which may be detected by percussion, and careful examination with the fingers. Likewise may be met every degree of tympanitic distension, which symptom is rarely absent, but does not generally attract much notice before the eighth day.

The secretion of urine often, and I believe in most cases, will be found scanty, and occasionally almost entirely suppressed; and I have long since been led to consider that the giddiness, buzzing in the ears, stupor, and watchfulness, and other cerebral disturbances, more especially in the earlier stages, have much dependence on the tardy performance of this very important function; I have never found these symptoms present in any very remarkable degree, when I clearly ascertained the secretion of urine to be abundant. Great muscular debility generally characterizes this fever from its commencement until termination in convalescence.

In the treatment, alterative doses of calomel are given in combination with quinine and bicarbonate of soda. Mercury is a good remedy and indispensable except in the later stage of the disease. A thapsia plaster to the stomach, and the neutral mixture with a little tincture of opium, will always check nausea and vomiting. After the stools become healthy and fever lessened, the calomel is stopped, and the quinine, and soda bicarb., with piperin, continued until the patient is out of all danger. If tenderness or griping pains in the bowels occur, warmth externally, and ginger tea given as a drink, (made from the root ginger and sweetened), which is quite palatable and refreshing.

Opium in this disease is best avoided as bad results have occurred from its use. Where the fever is very high, ice placed to the wrists, and tr. aconite root three drops every two hours, has been of benefit; for the thirst, soda water flavored with sassafras fresh from the fount is of marked value, the patient eagerly drinking and saying, how cooling it is in allaying the intense heat of the stomach. If stimulants are necessary, bicarbonate of ammonia is the best. I have always excluded everything like active purgatives, or any gastro-intestinal irritant, whether medicine or diet. In fine, the more rigidly I have adhered to the treatment above recommended, the more successful I have been in my practice.

60 Rutledge Ave.

UTERUS BILOCULARIS.

Read in the Section of Obstetrics and Diseases of Women, at the Forty-first Annual Meeting of the American Medical Association, at Nashville, Tenn., May, 1890.

BY L. H. DUNNING, M.D.,
OF INDIANAPOLIS, IND.

Of the various forms of malformation of the uterus due to defective development of the ducts of Müller, uterus bilocularis shows the least deviation from the normal, and ranks as second in point of frequency of occurrence. Of the 271 cases of such malformations, the histories of which have been studied by the writer, there were of uterus bipartitus, 14; uterus unicornis, 18; uterus bicornis, 175; uterus bilocularis, 68. This represents all the cases on record and classified in the library of the Surgeon-General's Office to May 1, 1888.

The causes operating to produce these malformations are unknown. The inner walls of the ducts of Müller meet and coalesce previous to the eighth week of embryonic life. The septum disappears between the eighth and twelfth weeks. It is in these periods that the form of malformation is, in the main, determined. When the walls of the ducts fuse, but do not disappear by absorption, the malformation in question results. It is interesting to note, and difficult to understand, how the causes of the malformation leap over a period, and are apparent again, during the time for the development of the fundus.

The septum, which forms the partition wall between the two chambers of the uterus, may extend from the fundus to the external os, to the internal os, or only a portion of the way from the fundus to the internal os. In nearly one-half of the cases, there is a duplex condition of the vagina also, and there is not infrequently deficient development of the Fallopian tubes. It would appear natural that there should be developmental faults in these two structures as well as in the uterus, since they are developed from the same ducts of Müller as in the uterus.

When there is a duplex condition of the vagina, the partition may be complete or incomplete, or vary greatly in thickness, size and shape. The writer has been unable to find a single instance in which there was atresia of one vagina, while this is not uncommon when the defective forma-

tion of the vagina is associated with other forms of congenital malformation of the uterus. In external form and appearance, the uterus does not differ very much from the normal, though usually the body and fundus are broader. Sometimes there is a flatness or slight depression in the centre of the fundus, and sometimes there is a marked fissure. The os is more frequently single than double, yet occasionally will be found a perfectly duplex condition of the vagina, with a perfect cervix in each vaginal tube. So slight is the deviation from normal, in instances in which there is no vaginal septum and there is a single os, the deformity is likely to be overlooked. In the majority of the cases reported, the malformation was discovered either during labor or at autopsy. When there is a double vagina, and each half has within it a cervix and os, it is fair to conclude there is a duplex condition of the uterus, though this is not always true. The form and shape of the body and fundus must determine to which class it belongs. If there is a markedly bifid condition of the uterus, it does not belong to the class we are considering. The passage of two uterine sounds will yield much desired information. The presence of two chambers in the uterus can be readily demonstrated when there are two ora. The same may be said if the uterine septum extends to the external single os, or even if it extends only to the internal os, and the condition be suspected.

Pass a sound along each cervical canal, into the uterine cavity to the fundus. The approximation or divergence of the handles will indicate the directions of the canals.

If the points of the sounds cannot be made to meet, steel to steel, we know there is a complete partition, and if there is a deficiency, it may in this way be discovered. Should the divisions of the uterus into two chambers be incomplete; *i. e.*, should the septum extend but part of the way to the internal os, the fundus be but little deformed, and the os single, I know of no way of detecting the malformation in the non-pregnant woman, except by dilating the cervical canal, introducing the finger into the uterine canal, and making thorough exploration.

The true anatomical condition of the uterus in the patient in the case I am about to report was accidentally discovered.

October 16, 1888, I was urgently requested to visit Mrs. H., whom the messenger stated was flowing alarmingly. I responded at once, and quickly learned that two or three hours previously, Mrs. H. had had an abortion. She was three and one-half months in the period. The embryo had been expelled, and something the attendant supposed to be the placenta. The hæmorrhage had evidently been profuse, for the patient was pale from the loss of blood, and the pulse was weak and rapid. The placenta was retained and partially detached, hence the hæmorrhage. I quickly prepared myself, and introduced one finger into the vagina, pushed it on into the widely dilated os. The finger readily entered the uterine cavity. By pressure of the right hand above the pubes, the uterus was brought well down, so that the fundus was reached by the left index finger within its cavity. Nothing was found within the uterine cavity except a few small clots, so I concluded I must have been mistaken in supposing there was a retained placenta. While washing my hands, the patient had a violent pain, and said she had passed a large clot of blood. There must be a retained placenta, yet how could I doubt my sense of touch. Sitting down by the bedside again, two fingers were introduced into the vagina, and one through the os into the uterus, when it came in contact with the placenta, which was separated from its uterine attachment and removed. I was puzzled, but the thought flashed into my mind, possibly there is a double-chambered uterus. So a further exploration was made. The os being largely dilated, two fingers were introduced into the uterine cavity, and the organ pushed well down by the hand upon the abdomen. The edge of a septum was felt about 1 inch above the internal os, and a finger made to pass upward, one on either side of it, each into a separate cavity, and thus was demonstrated the presence of the malformation known as uterus bilocularis. The right cavity, into which ovum developed, was much larger than the left; the walls were thicker and the surface more irregular. If any decidua had formed in the left cavity, it was never seen.

The patient had borne a healthy child three years previous to this abortion. She made a good recovery. She promised to call at my office as soon as she was able to be about, but went to her home in a distant city two weeks after the abortion; so I did not see her after she left the bed. The cause of the abortion is unknown. She had safely passed through pregnancy and delivery three years previously.

It might be hastily attributed to the insertion of the placenta upon the septum, yet study shows this is the only instance of abortion occurring in the seven cases of uterus subseptus in the list. It is, however, a fact worthy of notice that of the three patients who died during or after labor, in two the form of malformation was uterus subseptus (uterus bilocularis unicorporeus).

In a former paper[1] the writer presented a table showing the number of women pregnant, with some features of their subsequent histories. The table was correct so far as it went, but did not include his collection of cases reported in his first paper, and he did not discover until he began writing the present paper that this omission so materially affected the proper estimate of the rate of mortality of child-bearing women having such malformation of uterus. That table shows

[1] Journal American Medical Association, March 16, 1889.

that of twenty-six child-bearing women, seven died in consequence of pregnancy and labor. This gave a death rate of 26.9 per cent. Three died of hæmorrhage, two of peritonitis, one of collapse, one of eclampsia. We wish to add to this list nine cases included in a former article, and the one reported in the paper to-day. In these ten cases there were sixteen pregnancies, twelve normal labors, three abortions, one artificial delivery and no deaths.

This addition to the table very much lessens our estimate of the dangers to the life of the woman having uterus bilocularis. Now we can approximately estimate the rate of mortality as 19.4 per cent. This addition, and this correction, strikingly shows the little scientific value of conclusions drawn from a small number of cases or from incomplete reports. The writer is strongly inclined to doubt the statement made in some of our text books, that a decidua is cast off and expelled from the unimpregnated chamber of the uterus at labor or shortly afterward. He is positive it did not occur in the first one of his cases and thinks it did not in the second one, for nothing answering the appearance of a decidua was seen by the attendants who were instructed to look for it. Very few reporters mention the existence of a decidua.

Considering all the facts it does not seem reasonable a decidua should develop to the extent of becoming ripe and of being cast off. That the first steps toward the formation of the decidua are taken is quite probable, but the complete development of the decidua vera and of the decidua reflexa is dependent upon the presence of the ovum. The site of that body determines the activity of the processes leading to their perfect development. Separate a part of the uterine cavity from this stimulating influence, and if we reason from analogy we must conclude the growth ceases.

Again, one must observe that the nutritive changes taking place in the unimpregnated horn are much less marked and in some instances are not at all similar to those occurring in the pregnant horn. This is perhaps more apparent in the bicornute uterus, but has been quite frequently demonstrated in the uterus bilocularis. The unimpregnated chamber of the uterus may, and sometimes does, take on menstrual activity even during the growth of the fœtus in its fellow.

Ross' case, reported in the American reprint of the London *Lancet* for November 1871, demonstrates this possibility. The patient miscarried between the fifth and sixth month. She informed the doctor there was another child in her womb, so Dr. Ross introduced his hand into the cavity and found it empty, though by palpation the uterus seemed quite large. Three months later this woman gave birth to a living child, and the bilocular condition of the uterus was then demonstrated. Between the miscarriage and the birth of the child the woman menstruated three times in a perfectly normal manner. This patient was seen and the diagnosis verified by Dr. Hall, of Brighton. It has been shown by repeated observations that sometimes the opposite sides of the uterus alternate in the performance of the menstrual function, and it is probable here may be found an explanation of the occurrence of menstruation in some women during pregnancy. No doubt in some of these instances there is a double uterus, one half is pregnant the other half menstruates.

In no instance did hæmatometra appear in a woman who had become pregnant. Two cases in the number pregnant are recorded. One is an anatomical specimen with little history, in the other there was occlusion of one os and the formation of a hæmatometra. It was opened by trocar and the opening kept patulous by the daily passage of a sound. It may be incidentally mentioned that in the other forms of congenital malformation of the uterus these accumulations of blood in the uterus resulting from menstruation and occlusion are not infrequently found, and experience has shown that the most effective means of cure, and the least dangerous to the life of the patient is to freely incise the tumor, empty the cavity, and wash it out with antiseptic solutions.

Menstrual disorders are not found common to this malformation, neither are its subjects more liable to diseases of the reproductive organs, hence our chief interest as practitioners will be in those cases where pregnancy occurs.

Such an occurrence exposes the patient to greater dangers than does pregnancy in women having normal uteri, the chief cause of danger being hæmorrhage. Septic peritonitis under our present forms of treatment should rarely occur. The lodgement of the fœtus in a chamber having no os or an inpervious one is a remote possibility.

Irregular contractions of the uterus rendering labor tedious has been quite frequently observed, and the presence of a vaginal septum has in a number of instances retarded labor and necessitated operative interference. Various methods have been employed with uniformly good results. A thick vascular septum where immediate action is demanded is best served by the galvano- or thermo-cautery. The elastic ligature has been used in such a condition where haste is not imperative with good results. The thin, slightly vascular septum may be incised at once with knife or scissors. In not a few instances nature is able to overcome all obstruction either by dilating the parts or by tearing the septum before the descending head of the fœtus.

A SIMPLE AND EFFECTIVE METHOD OF ANÆSTHETIZING THE PHARYNGEAL TONSIL.

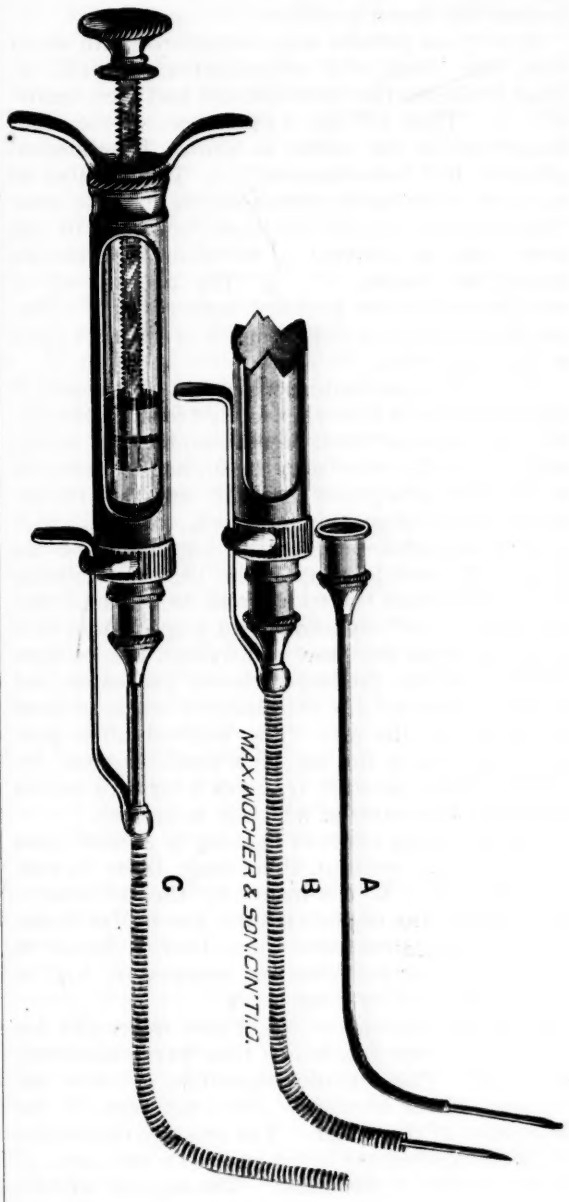
Read in the Section of Laryngology and Otology, at the Forty-first Annual Meeting of the American Medical Association, Nashville, Tenn., May, 1890.

BY J. E. BOYLAN, M.D.,
OF CINCINNATI, O.

I wish to exhibit a simple instrument which, in my hands, has filled a long felt want. I am in the habit of removing hypertrophied adenoid tissue from the vault of the pharynx, with the patient in the sitting position, and without giving a general anæsthetic, to which I reluctantly resort, only in exceptional cases. In operating in this way, the greatest difficulty I had to contend with, was the very considerable pain which was invariably present, and which at times prompted the patient to refuse peremptorily a second introduction of the instrument. Local applications of cocaine, either by spraying through the nose, or worse, by means of the application of a brush to the naso-pharynx, proved most unsatisfactory; in the one case the sensitive nasal mucous membrane was chiefly affected by the cocaine; in the other, repeated introductions of the brush were usually impeded by reflex contractions of the muscles of the soft palate, and in neither was any satisfactory amount of anæsthesia produced.

In casting about for a remedy for this annoying feature, the following device suggested itself:

The instrument used consists of a very light and properly curved pharyngeal canula, to the tip of which an ordinary hypodermic needle is adjusted, and which is screwed in the usual way to the barrel of a graduated, glass, hypodermic syringe. To the posterior extremity of the barrel, finger rests are attached for greater convenience, and upon the thread of the piston rod a guard revolves, which is designed to regulate the amount of fluid injected. The canula was substituted for a less practicable, long, curved needle originally devised; when it is screwed to the syringe with the piston rod drawn, the instrument is a very handy one. With this syringe I am in the habit of injecting M. 15 of a 10 per cent. solution, or about gr. 1½ of cocaine, into the tissue at the vault of the pharynx, before operating, and secure in this way, within five minutes, almost complete local anæsthesia. The pain of the operation, as compared with that after the application of cocaine, is almost null, an advantage which I am sure those who are in the habit of operating upon this tissue will appreciate. A further great advantage of this procedure is the ease and great celerity with which it is accomplished. The needle is readily introduced and quickly buried in the tissue in the medium line, in cases where the application of a brush or mirror is out of the question. To meet the objection which might possibly be raised, that injury might be done to adjacent parts during introduction, I have devised a movable spiral wire guard (Fig. B), which can be slipped upon, or removed from, the canula in an instant. During introduction the guard covers the needle, as shown in Fig. C, and is slid back upon the canula with a finger of the operating hand when the injection is made. In most



instances, however, I believe this to be an unnecessary precaution, and have seldom had occasion to resort to it. Having found this method more pleasing in practice than in theory, I take great pleasure in recommending it, feeling convinced that it will give general satisfaction.

MEDICAL PROGRESS.

THE EFFECT OF FREEZING UPON IMPURITIES CONTAINED IN WATER?—The Massachusetts State Board of Health, (June, 1890,) publish experiments with seventy-six samples of water, and 336 samples of ice from fifty-eight localities, to answer the above question.

In ice from polluted sources compared with water from the same, the experiments showed: 1. That in the ice the color and salt had been removed. 2. That all but 13 per cent. of the other impurities of the water, as shown by chemical analysis, had been removed. 3. The number of bacteria in the cubic centimetre were: For *snow* (one sample) 1,246; for *clear* ice (part of the same cake as above,) 6; for clear ice from an unpolluted source, 0. 4. The average of 12 samples from most polluted sources, 138. The number of bacteria varied much in different parts of the same cake.

From the examinations which have been made, it appears probable that when ice first forms in the surface of a pond or river, a considerable part of the impurity in the water near the surface is entangled in the first inch or less in depth, and that the ice which forms below this first inch, contains but a very small percentage of the impurities of the water. If snow falls upon the thin ice, causing it to sink so that the water from below saturates the snow, it will freeze without purification; or if rain falls upon the snow and freezes, the ice thus formed contains the impurities of the snow and of the rain water and of whatever else may have settled out of the air. The method often pursued, of flooding the ice of a pond, or river, by cutting holes through it, gives a layer of ice as impure as the water of which it is formed.

The purifying effect of freezing is greater upon substances in solution, than upon those in suspension. This is confirmed by the fact that a large part of the organic matter, one-half or three-quarters, and sometimes more that is found in good ice, is of particles in suspension, and is readily removed by filter paper.

From the average of all of the water and ice used for ice supplies, which they have examined, they find: The organic impurities of snow ice (the sum of the ammonias,)=69 per cent. of the impurities of the water. The organic impurities of all the ice (except snow ice,)=12 per cent. of the impurities of the water. The organic impurities of clear ice,=6 per cent of the impurities of the water. The *color* of waters was removed by freezing. The *salt* of the waters was nearly removed by freezing.

Of bacteria there were: 81 per cent. as many in *snow ice* as in the waters. 10 per cent. as many in *all other ice* as in the waters. 2 per cent. as many in *clear ice* as in the waters.

The results obtained lead to the conclusions: That while clear ice from polluted sources may contain so small a percentage of the impurities of the source, that it may not be regarded as injurious to the health, the snow ice, and any other, however clear, which may have been obtained by flooding, is likely to contain so large a percentage of the impurities of the source, and with these impurities, some of the disease germs which may be in the source that the Board feels bound to warn the public against using ice for domestic purposes that is obtained from a source polluted by sewage, beyond that which would be allowable in a drinking water, stream, or pond, and that in general it is much safer to use for drinking water, and for placing in contact with food, that portion of the ice that is clear.—*Public Health.*

THE TREATMENT OF TUBERCULAR ABSCESSES.—BILLROTH has again made a great impression on the surgical world by an article published a few days ago. Tuberculous abscesses have long been studied and treated unsuccessfully. For the past four years Billroth has been steadily experimenting with different means of treatment till now he has reached a conclusion, which, as it is based on his enormous clinical experience, cannot fail to excite great interest. Contrary to the usual method, he cuts down upon the abscess and lays it widely open; draws off the pus and cleans out the remotest corners; follows up any fistula to its point of origin, and scrapes the lining surface of the abscess until all the so-called membrane is removed. Sometimes it is necessary to open a thigh from the popliteal space to the tuberosity, but thoroughness in regard to the fistulæ is absolutely necessary. He then waits until the bleeding has ceased, of course removing the Esmarch, if one has been used, and when the wound is glazed by the serum he fills the abscess cavity with an emulsion of 10 parts of iodoform in 100 parts of glycerine. The edges of the wound are then brought together and stitched very carefully, so as to close the cavity perfectly without an opening for drainage. Thoroughly antiseptic dressings are applied and left on for several days. In most cases he gets primary union and the abscess heals, the iodoform emulsion being slowly absorbed as granulation goes on. Sometimes when antisepsis has been imperfect sloughing results, but even then the abscess generally heals from the bottom without recurrence. In a few cases the results were not good, but in these the operation was not sufficiently thorough, as some of the recesses were left untouched. Strange as it may seem, iodoform poisoning has been noticed in only a few cases, and in a very slight degree. Billroth has used the same method in tuberculous caries with equally good results, and now asks the profession to try the method. How does the iodoform act? It is

known that iodoform is not a perfect antiseptic, but a most powerful stimulant of granulation. To use Billroth's words, "Iodoform exerts a great formative influence on the smaller vessels, and these soon begin to grow out and multiply in an extraordinary manner by constant production of offshoots and capillary loops. This energetic growth of the living tissue seems to rob the microbes of their nourishment; in the struggle for existence they succumb to the growing cells of the vessel walls." As granulations secrete pus only when diseased, drainage is unnecessary. When the method is used in caries the action is the same, the osteophytes in this case being stimulated.—Vienna Letter, *Medical News*.

THE UROLOGY OF INFLUENZA.—Unde the title "Urologia de l' Influenza," M. F. CHAPPELLE *pharmacien*, read an interesting paper before the Pharmaceutical Society of Lyons, on March 1, 1890 (*Lyon Médical*, 1er Juin, 1890, Tome LXIV., Vingt-deuxième Année, page 155). According to Hayem, all influenza patients have urobilin in excess in the urine. Huchard finds in "la grippe" a constant diminution of phosphates. Fernet, on the other hand, finds an increase of both urates and phosphates. Gautrelet ascertains that in the urine of these patients there is some hyperacidity, and an increase of indican. M. Chappelle himself finds three constant facts in the urine of "la grippe"—hyperacidity, a notable excess of phosphoric acid, and richness in coloring matters (chromogens). Taking an average living weight of 60 kilograms (132 lbs.), the normal excretion of phosphoric acid in twenty-four hours is 3 grams (46 grains). In the influenzal cases the numbers were 3.67 grams, 6.80, 3.43, 4.20, 4.06, 5.11, 4.90, 4.20, 7.35, 3.67 respectively. These values prove an excessive elimination of phosphoric acid in influenza. M. Chappelle thinks that Huchard obtained his low values in consequence of the hyperacidity of the urine. In testing with uranium in a very acid medium, the final reaction with ferro-cyanide would not be complete if the experimenter had not taken care to neutralize the medium.

As to the question of chromogens, indican (which was pointed out by Gautrelet as being constantly present) was met with by Chappelle four times only among the eleven specimens examined.

As regards urobilin, influenzal urines, far from containing it in excess, are often wanting in it. Twice only did Chappelle get the characteristic green fluorescence with ammonio-chloride of zinc.

Nevertheless, all the urines examined were rich in a chromogen formerly described by Neucki and Sieber, and by them named "urorosein." This substance is revealed by a rose tint which urine assumes after from one to three minutes' contact with pure hydrochloric acid or dilute sulphuric acid. To 50 cubic centimetres of urine are added 5 cubic centimetres of sulphuric acid of the strength of 25 per cent., and some cubic centimetres of amylic alcohol. A beautiful red color is obtained on shaking carefully. Alkalis and alkaline carbonates decolorize the solution of urorosein, acids reproduce the coloration.

A fact which is also to be noted is the presence in certain influenzal urines of a derivative of skatol conjugated with sulphuric acid, long since described by Brieger. This compound gives birth to a violet coloring matter by the reaction of the hypochlorites in hydrochloric solution. This substance, insoluble in ether, is soluble in absolute alcohol. Chappelle met with it on two occasions. In one of these two samples of urine he was absolutely able to determine, in the product of the distilled urine, skatol itself, easily recognizable by its stinking odor, and by the red needles of picrate of skatol which the etheral solution of picric acid forms in the distilled product. —*Dublin Journal Medical Sciences*.

THE DISINFECTING POWER OF CHLORIDE OF LIME.—In the Sanitary Reports of the Marine-Hospital Service for August 8, 1890, appears a translation, from the *Centralblatt für Bakteriologie und Parasitenkunde*, of a paper on the above subject, written by E. NISSEN for the *Zeitschrift für Hygiene:*

"Contrary to the previous statement of Koch, Sternberg, and later, Jäger, found that chloride of lime possesses decided germicide power. In consequence of these contradictory results, Nissen undertook, at the suggestion of Koch, a new experimental research to decide the question.

"The result of this shows that, as a matter of fact, chloride of lime has very great disinfecting power. At first microörganisms without spores, and having comparatively little resisting power, were tested, in bouillon culture, by Esmarch's method. As chloride of lime solution gives an abundant precipitate with bouillon, the cultures were first diluted. The chloride of lime solution was added, either filtered or not filtered. The result was the same in either case.

"The bacillus of typhoid fever was destroyed in bouillon cultures, at the end of five minutes, by 0.12 per cent. of chloride of lime; the cholera bacillus and anthrax bacilli without spores, by the same proportion, usually in one minute.

"Anthrax spores of moderate resisting power (killed in three minutes by flowing steam), dried on silk threads, were destroyed in fifteen to thirty minutes by a 5 per cent. solution of chloride of lime. . . . .

"Putrid fluids and fæces were very quickly disinfected by the addition of chloride of lime. Bouillon which had become putrid was, as a rule, thoroughly sterilized in five minutes by the addition of 0.1 per cent. In diarrhœal fæces an ad-

dition of 0.5 per cent. of chloride of lime, either in solution or as a powder, destroyed the typhoid bacillus inside of ten minutes. Nissen thinks, therefore, that chloride of lime is especially suitable for the disinfection of bed-pans."

These results correspond entirely with those previously reported by the Committee on Disinfectants of the American Public Health Association, published in 1885.

EXPERIMENTAL STUDIES IN THE ANTISEPTIC PROPERTIES OF THE ESSENCES.—CODEAC and MESMIER have fixed a scale of the antiseptic value of the essences, based on the duration of their contact with the microörganisms. In their experiments they made use of the typhus bacillus and the bacillus of glanders to establish a comparison between the action of the microbicides in ordinary use and the action of the essences.

With regard to the typhus bacillus, it is shown that the essence of cinnamon has antiseptic properties very nearly equal to those of sublimate in the proportion of 1 to 1,000. Comparison with other antiseptic agents, as, for example, boric acid, carbolic acid, sulphate of copper, and iodoform, is altogether favorable to the essences. Many essences check the development of the bacillus after a few hours or minutes, while the other antiseptic agents are effective only after the lapse of the same number of days. The antiseptic action of the several essences is graded down to those which are effective against the bacillus of typhus only after ten days' contact.

Following the same method, Codeac and Mesmier experimented with the bacillus of glanders, and proved the antiseptic action of the essences to be the same for glanders as for the bacillus of typhus. Mineral antiseptics, however, exert an influence on the microörganism of glanders superior to that which they exert on the typhus bacillus.

The experiments conducted by Codeac and Mesmier confirm those of Chamberlane, who tested the antiseptic properties of the essences in a state of vapor and in direct contact with the bacillus anthracis. The result of these investigations is that all essences possess variable antiseptic properties, and that some possess them in as high a degree as the most active chemical antiseptics, sublimate, iodoform, and sulphate of copper.

Medical antisepsis is not of recent origin. The ancients practiced disinfection, though they were ignorant of the term, and the Egyptians prevented the decomposition of bodies by the use of essences and perfumes.—*Sanitary Reports, Marine-Hospital Bureau.*

PLACENTA PRÆVIA.—At the annual meeting of the North of Ireland Branch of the British Medical Association, DR. DEMPSEY read the notes of a case of placenta prævia which he had treated successfully by the introduction of a large piece of solid alum up against the os, and maintained in close contact with it by a vaginal tampon. He claimed for it a number of advantages: 1. It produces constriction of the uterine sinuses by hardening and contracting the uterine fibres in the lower segment of the uterus, against the outer surface of which it is in contact. 2. It appears to assist in causing thrombosis of the sinuses. 3. It produces a tenacious, mortar-like coagulation of the effused blood, which acts as an additional tampon in the vagina. 4. It does not prevent dilatation; and, 5, from the limited experience of it, it appears to obviate the necessity for the usual operative measures required in placenta prævia until the os is sufficiently dilated to permit of them with safety. In the case in point, the patient was a multipara between the seventh and eighth months of pregnancy; active hæmorrhage was going on before the introduction of the alum, yet none occurred afterwards, though the placenta was central, and dilatation had proceeded almost to the full extent. The alum had been left in for seventeen hours. Immediately after its removal violent hæmorrhage again occurred, but delivery by version was easy of accomplishment without any injury to the maternal structures. Dr. Dempsey also showed a most interesting specimen of placenta prævia, where abortion had taken place at the fifth month of gestation, and which had been treated by the same method as the above. The placenta was centrally attached over the os in this case also, and the breech presented; but, owing to the very extensive uterine attachment of the placenta, the fœtus was born enclosed within the placenta. Only a very small portion of the amniotic membrane could be seen on one side of the fœtus, like a small window in the placenta. The fundal part of the placenta was the thickest, and the funis was attached to this portion.—*Brit. Med. Journal.*

CREOLIN IN ERYSIPELAS AND ECZEMA.—DR. C. G. ROTHE (*Memorabilien*, July, 1880) calls attention to his earlier publications, in which he recommended a solution of carbolic acid and iodine in the treatment of erysipelas; while the results with these drugs were excellent in some cases, they proved irritating to the skin. Of late he has employed a paste containing about 3 per cent. of creolin, applied freely over the affected part. The application is very pleasant, and the subjective sensations are "cooling." Results have been excellent, not only in erysipelas, in which the application was rapidly followed by a decrease in inflammation, but also in acute eczema. In chronic eczema with formation of crusts and thickening of the skin, nothing is to be expected from the use of the drug.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.
PER ANNUM, IN ADVANCE.....$5.00
SINGLE COPIES.....10 CENTS.

Subscription may begin at any time. The safest mode of remittance is by postal or express money order, drawn to the order of THE JOURNAL. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 68 WABASH AVE.,
CHICAGO, ILLINOIS.

All members of the Association should send their Annual *Dues* to the *Treasurer*, Richard J. Dunglison, M.D., Lock Box 1274, Philadelphia, Pa.

LONDON OFFICE, 57 AND 59 LUDGATE HILL.

SATURDAY, AUGUST 23, 1890.

THE FAILURE OF OREXIN AS A STOMACHIC.

Our attention was first called to the use of orexin by the paper of PROFESSOR F. PENZOLDT in the *Therapeutische Monatshefte*, for February, 1890. The term was applied to the hydrochlorate of phenyldihyrochinazolin ($C_{14}H_{12}N_2Hcl$) on account of its supposed properties as an appetizer and digestive. It is a whitish powder, having a bitter, burning taste; and, used experimentally on animals, was toxic only in large doses, and had no escharotic action on the mucous membrane of the conjunctiva, stomach, or subcutaneous cellular tissue. In man, a dose of 7½ grains produced a good appetite; and it was ascertained, by examinations with the stomach tube of test meals during their digestion, that 3¾ grains of the drug reduced the digestive period of wheat bread half an hour, and of beef-steak by thirty to thirty-eight minutes. With 7½ grains, the digestive period of bread was reduced by three-quarters of an hour, and of beefsteak by one hour.

Therapeutically it was employed to relieve anorexia consequent upon surgical operations, and in tuberculosis, chlorosis, and heart affections. In nineteen of thirty-six cases there was marked improvement, eight cases were benefited, three cases were moderately improved, and six cases were not improved. The dose was 7½ grains, three times a day, given in capsules and followed by a cup of meat broth or warm water. A detailed history of each case treated was given.

Naturally so important an addition to therapeusis was not neglected, and in the *Prager Medicinische Wochenschrift* for March, DR. GLÜCKZIEGEL reported seventeen cases in which he had used orexin, in doses smaller than those used by Penzoldt, but without obtaining any improvement of the appetite or digestion. Somewhat later IMREDY reported, in the *Pharmaceutische Post*, several cases in which he had employed orexin, in the same dose as Penzoldt, not only without any resultant improvement in the appetite, but even with consequent nausea in a few cases. Lastly MARTIUS, in the *Deutscher Medicinische Wochenschrift*, reported that in twenty-nine cases, the appetite was slightly improved in five while no effect was produced in the balance of the cases. And in the five cases that improved the same result was obtained by using pills of marshmallow similar in size to those of orexin. In order to exclude the influence of imagination in prompting a favorable report Martius did not let his patients learn the result he expected to obtain with orexin. Verbally we have heard of similar failures to obtain beneficial results from the drug, by observers in this country.

No observer, therefore, has corroborated Penzoldt's successful results that were possibly consequent upon the patient's desire to have an appetite. While it would be very desirable to have such a remedy at our command, as orexin was claimed to be, we cannot regret that this drug has failed in realizing what was expected of it. From Penzoldt's "Lehrbuch der klinischer Argneibehandlung," we learn that 1 gram (fifteen grains) of the drug costs twenty phennig (four cents); like antipyrin it has been patented, and the manufacturers sell it in this country in small bottles, containing fifty tablets of 1½ grains each for a dollar and a half. As this is more than seven times the value of the drug, in fifty tablets, and it is not sold at all in bulk, we are glad to show our readers, as we have practically learned ourselves, that this expensive medicament is practically useless.

MEDICAL LEGISLATORS AND LEGISLATION IN FRANCE.—The medical members of the French parliament have formed an association with the view of taking joint action upon proposed medical legislation. Medicine is well represented in this body, upwards of eighty being physicians.

ELECTROCUTION SO-CALLED AND ITS LESSON.

The Excelsior State has had its sensation, and the mystery of death is still practically unsolved. The public, too, who for weeks had been keyed up to the point of highest expectation have been disappointed. To be sure, the press gave its space writers the largest liberty, and the wood-cut artists the broadest discretion, but what beside the grewsome details of a judicial death has been gained by the morbidly curious? Much more may be said in the streets about volts, and the death-dealing capacities of different electrical systems, but what profit has there been? The press, the great servitor of morals, saw fit to disobey the legal injunction of privacy, and thanks to its so-called enterprise every household in America and Europe knew the plot of the drama almost as soon as the death of the culprit was pronounced.

As medical journalists we can hardly be expected to discuss the phases of the affair, without being open to the charge of departure from a settled policy, and therefore avoid comments upon alleged bungling, and illy concealed attempts to prove that one "commercial apparatus" was more lethal than another. Nor with the so-called barbarities of the mode have we much to do,—nor with the sentimentalities which may have inspired the legislation, nor with the psychological problem offered by the prison-life of the culprit, whom posterity may endow with a unique immortality for having been the first, perhaps the only one, in all the ages to suffer, what the advocates of various modes of execution are pleased to call a "scientific martyrdom."

We suppose that until the dawn of the millenium there will be reversions to an ancient savagery, when murder was no crime—that there will be individuals, who dread the penalty rather than abhor the crime—that there will be criminals who would rather die game than penitent—that there will be enthusiastic executioners and omniscient savants, but we are optimistic enough to believe that the times are growing ripe for the appreciation of deeds that elevate and for the patronage of a daily literature that may be admitted without a demur into the home-circle. We care not how the society of the future may punish offenders against its laws, whether by the rope or by the guillotine, by the garrote or by poison, by musket or by faggot, since many of the world's martyrs have dignified all of these modes—but we certainly do object to the raree-shows of the State under the guise of retributive examples. Let us have, if you please, life imprisonment, without hope of pardon, the mysteries of the Bridge of Sighs, and the mental torments of "The Man without a Country," but let us have no dramas, with daily rehearsals and miserable failures. The noblest of all lands have not craved euthanasia for themselves, why force it upon criminals? We advocate no cruelties and deny no mercies, but we can not divest ourselves of the idea that the phrase "court-martialed and shot" is a much more awe-inspiring deterrent from crime than the reported dying speech.

Meanwhile as a home-lesson to ourselves, let us not surrender a profession, often dignified by the world to the coming satirist, by talking to the multitude through an interview, but let us do our own proper work by striving to prolong life. We serve neither God, our country, nor ourselves by ventilating quarrels and exhibiting in safer and milder forms those very passions, which have wrought so much disaster among the less intelligent to whom the personal pronoun is the all-in-all. Amid all temptations it were well to observe the teachings of a very old code, which enjoins upon all to "have peace with one another." We neither earn nor deserve respect by bandying epithets, unless it be our aim to please the many who clamor for a little comedy to relieve the gloom of the tragedy. As was said by an eminent divine of hanging, we may put ourselves to better uses.

WRITER'S CRAMP AND ALLIED AFFECTIONS

MR. JULIUS WOLFF, writing master of Frankfort-on-the-Main and London, writes to the *British Medical Journal*, July 19, of his special method for the treatment of neurosis of the hand. This phrase he considers to be preferable to that used more frequently, and restricted in its application to the muscular debility that befalls the penman, whereas the affection finds examples in many other occupations, as the telegraphist, the painter, the violinist, the embroiderer, the cigarmaker, and others. His method of treatment, which has been utilized by CHARCOT, NUSSBAUM, FERRIER and others, is by massage and gymnastic exercises, both of which are so devised as to prima-

rily influence the muscles and nerves of the affected part, and secondarily to act upon the psychically affected centre; that is, the morbidly disturbed will-power of the patient. This latter function of the treatment he really set in the more prominent place, and he speaks of it as the more important and essential purpose, in that he hopes thereby to moderate the morbid action, or rather, by drawing the attention from the affected part, to influence some new action of the mind. This is the only secret of his treatment, the untiring and intelligent efforts to practice his material means in strengthening exercises, and at the same time direct the patient's attention to a neutral field. Mr. Wolff has the theory that occupational cramp does not occur in the cases of persons who are not hyperæsthetic neuropathics, which view he is able to substantiate by numerous instances in which there has been a nervous hyperæsthesia apart from, superadded to or transferred from the hand to other members. In some instances he has seen the trouble migrate from the right to the left side. In one case, he has observed synchronous movements in the right great toe and in the right thumb when the patient essayed to write. The success of the treatment largely depends upon the ability of the operator to win the confidence and secure the diligent coöperation of the patient. When he is able to secure this assistance, the prognosis is favorable, and a permanent cure may be expected. But the permanence of the cure depends entirely upon a use of gymnastic exercises, even after the operator has discontinued the treatment by massage. Cases of relapse are not impossible, but they have not occurred, in the experience of Mr. Wolff, where the patient has been faithful in the use of the prescribed gymnastic exercises.

EDITORIAL NOTES.

PAPERS MISLAID.—We regret exceedingly that the package which contained the papers presented in the Medical Section at Nashville, in some unaccountable manner, has gone astray. It has often been the custom for Secretaries of Sections to retain the papers for a few days, and as soon as they were properly arranged to forward them to THE JOURNAL. For a time it was supposed that these were thus held. But later correspondence reveals the fact that they were arranged by the Secretary at the time, and left for delivery at Nashville. A most diligent correspondence and searching has failed thus far to discover them. It is our hope that the package may still be recovered. In the meantime, we have corresponded with each of the writers of papers, and in most cases will be able to secure duplicate copies for publication.

We deem this explanation due both to writers and to readers, thus giving the reason why the Section on Medicine has not been duly represented, in the papers already published.

HONORARY PRESIDENTS.—The following were made Honorary Presidents at the Medical Congress in Berlin: For the United States, John S. Billings, M.D.; Austria, Professor Billroth; England, Dr. Stokes; France, Professor Bouchard; Italy, Dr. Bacelli; Germany, Carl Theodore, Duke of Bavaria.

CANVASSERS FOR THE JOURNAL.—If members of the Association will bring to the attention of medical students the fact that a liberal commission will be paid for the securing of new subscribers to THE JOURNAL, it may in many instances be helpful to those who are striving to obtain a medical education. In almost any prominent locality an enterprising canvasser could secure subscriptions which would well compensate for the effort. Correspondence invited. Address "JOURNAL AMERICAN MEDICAL ASSOCIATION, 68 Wabash Ave., Chicago, Ill."

THE ADVANCE OF CHOLERA.—The latest reports, August 17, announce that on August 16 there were thirty-four deaths from cholera in Mecca, eighteen in Cairo and one in Madrid. Traveling with the moving throngs of benighted pilgrims and unrestrained by sanitary cordons, we may well anticipate the further spread of this disease along the maritime routes of the Mediterranean and the Red seas. France and Italy are commendable in their exertions to prevent its incursions, but with what measure of success it yet remains to be seen.

THE ESTIMATE OF THE BERLIN MEDICAL CONGRESS.—The general verdict we believe will be favorable. The attendance has been much larger than was anticipated, and more or less inconvenience was the result. The heat during the days of session was excessive, and added to the

discomfort. The arrangement of rooms was such as to render the presentation of papers at times difficult, and the want of attention to papers not presented in the German language was a matter of criticism. These were minor considerations and should hardly enter into the estimate of results. The meeting, face to face, of such a body of notable men, must create an abiding inspiration to more extended and better work, and we are confident that the result more valuable than all others will be found in the writings of these men. We believe that the consensus of opinion as held by medical men in 1890 will be found in the forthcoming volume of Transactions.

CLOSING OF THE MEDICAL CONGRESS.—In the cable dspatches of the N. Y. *Medical Record*, we have a brief outline of the closing exercises of the Berlin Congress. Prof. Virchow, in his farewell address, expressed the hope that members would carry with them the conviction that Germany was great in peaceful pursuits—that in science there was no division of races or religions. He thanked the Imperial authorities of his country for the interest they had manifested in the welfare of the Congress, and expressed his hope to greet again his fellow-members three years hence in Rome. Brief addresses and parting words of friendly import were offered by the various foreign representatives. Dr. Billings, on the part of the American delegates, expressed their thanks for the courtesies which they had received.

THE OBJECT OF MEDICAL ASSOCIATIONS.—A brief synopsis of the address of Professor Virchow at the opening of the Medical Congress is given by cable to the *Medical News*, in which he states the value of international meetings to be that of uniting the medical world in the struggle against disease and death, and that the object of medical associations should not be to get more pay and shorter hours, but to increase our ability for research, and to diminish the dangers that surround humanity.

INTERNATIONAL MEDICAL CONGRESS.—In response to the addresses of welcome at the Berlin Medical Congress, Surgeon-General Hamilton, of the Marine-Hospital Service of the United States, said:

Mr. President and Colleagues:—The pleasant duty of responding, on behalf of the American delegates, to the gracious welcome extended to us, has been assigned to me. America is grateful for the generous attendance at the last Congress, and I assure you that she takes a deep interest in the success of this Congress—a success now assured by reason of the Herculean labors of the Secretary-General, Dr. Lassar—she has taken an unusually deep interest, because of the respect and admiration her physicians feel for the profound learning and social graces of the physicians of the Old World, and particularly of our present hosts.

We came to see and appreciate your greatness; I say this in all sincerity, for the United States, the product of a single century, does not expect or pretend to equal in the fine arts and sciences the product of all antecedent time as represented here. Having seen, we agree that "the half has not been told us."

Here are gathered in council many of the men whose books we have read, we may see the rooms in which they teach, speak to them face to face, and we will carry to our homes and lecture rooms the most pleasant and delightful recollection of Berlin and Germany.

We also join in congratulations with our confrères of other countries, that we have as President one whose fame has been truly international for more than a quarter of a century; whose supremacy in pathological medicine is recognized in every country inhabited by civilized man. Happy the German medical profession in possessing a Virchow, and thrice fortunate the Congress over which he presides!

In the International flower garden the delicate floweret newly arrived, glistening in the morning sun, naturally takes a more retired place than the full blown rose, and so the relative infrequency of American names on the program is natural evidence that our delegates prefer to hear your mature reflections, rather put forward our own.

In the name of my colleagues I again thank you for this gracious and hospitable welcome.

The United States was given the precedence in the order of speaking, on account of the last Congress having been held in America.

THE memory of the late Miss Alice Fisher, the originator and for many years the head nurse of the Training School for Nurses at the Philadelphia Hospital, has been publicly honored, in the erection of a brass tablet at that institution. The unveiling took place June 16.

A REPRESENTATIVE MEETING.—We doubt if in the world's history there has been another so remarkable assemblage of illustrious men as was convened in the Congress at Berlin. Over five thousand delegates were present, of whom one-half were foreigners. It is idle to enumerate the list of eminent living men that were present. The nations were ably represented by those whose names are familiar to the profession the world over. In due time, the real benefit of this gathering will be apparent, as the papers they presented shall be given to the press.

TOPICS OF THE WEEK.

LATIN, ITS USES AND EDUCATIONAL VALUE.

The subject of the preliminary education of medical students, quite as much commands the serious consideration of medical men in Europe as it does in America.

At the Fifty-Eighth Annual Meeting of the British Medical Association held at Birmingham July 29, the President, Dr. Willoughby Francis Wade, in concluding his address, made the following reference to Latin and its educational value.

"Let us see then what the uses are to which a medical man does actually put his knowledge of Latin.

"1. He writes in his prescriptions the Latin names of drugs instead of their English or Anglicised ones.

"2. He writes in Latin his instructions to the dispenser for compounding the drugs so ordered.

"He writes in Latin his instructions to the patient as to the quantities in, and the times at which medicines are to be taken, or as to the manner applications are to be used. These are the only uses to which he puts his costly knowledge. It must also be allowed that he can, if he is so disposed, read easy pages from *Celsus*.

"Now, I submit to you that the necessity for doing the three former things is of a purely arbitrary and artificial character. And, further, that the necessity, such as it is, has already crumbled, and continues to crumble. I will give reasons for this allegation. As to writing the names of drugs in Latin: In accordance with the Medical Act of Parliament, the General Medical Council publishes a *Pharmacopœia*—our sole legal authority for the drugs we use. In this *Pharmacopœia* the Latin names are given, it is true, but all the English names are also given. As to writing in Latin our instructions to the dispenser: All directions to the compounder are, in the *British Pharmacopœia*, written in English, of which no Latin version is given. The Conjoint Board goes even further. If you refer to the 'Synopsis indicating the Range of Subjects in the Examination on Materia Medica and Pharmacy' published by this body, you will find all the drugs specified are called by their English names only; no Latin synonyms at all. For example, we find 'silver nitrate' not 'argenti nitras;' 'Acids—hydrochloric, nitric'—etc., not 'acidum hydrochloricum,' etc., and so on through the whole list of nearly two pages. The General Medical Council at their late session received from the Royal College of Physicians a list of proposed additions to the *Pharmacopœia*. That list was, I believe, in English only. So far, then, as the example of these representative bodies goes, it lends little countenance to the still customary habit of writing the two first portions of a prescription in Latin. And it seems to me that we should be equally in order if we used those English names with which the Council has authoritatively provided us. Lastly, as regards the instructions to patients how to take their medicines and use their appliances: It is common knowledge that a large and increasing number of practitioners invariably write these in English. And it is equally certain that those who do so are as often to be found in the higher grades of the profession as in any other. I am in no way concerned to defend this innovation, having personally always followed the ancient practice. The hypothetical student of the easy bits of *Celsus* I will pass by on the other side. If you desire to state your belief in his non-existence, your literary memory will supply you with a suitable form of expression. That, from an instructional point of view, the compulsory study of Latin rests upon an artificial basis I claim to have proved.

"There remains the vital question of its educational value. At a remote period all knowledge beyond the most elementary was communicated, and communicable solely, in a dead language, and chiefly in Latin. A deeply rooted feeling, which probably originated in that period, still exists. It is that a nonclassical education is so imperfect as to be unworthy of a gentleman. Or, to use a word which has become obsolete in polite society without leaving a successor, such an education is not 'genteel.' That has but little to do with its intrinsic merits, but it lends to the maintenance of the custom the support of a stupendous inertia. There are, it must be admitted, large numbers of persons who are keenly alive to the salutary and expansive effects produced upon their own minds by the classical element in their own education. These naturally believe that such effects could have been produced by no other means. Now, it is no part of my purpose to disparage classical education. I do not despise, and I desire not to undervalue, any branch of human knowledge. We can examine no one of them without perceiving that unwearied industry, exceeding ingenuity, and many high intellectual qualities have been engaged in bringing them to their present state of perfection. All this is at least as true of classical as of any other branch of learning. Nor do I deny that such studies open up paths of literature of the highest interest, and in some respects all their own. I will grant all that may be claimed for them short of this—that there is no other course of education which can equally cultivate, strengthen, and expand all the faculties of the brain or qualities of the intellect. Whatever may be the apparent superiority of any means of education, they must be submitted to certain tests before their actual value can be decided. We have to enquire, not merely into their real value, but into their relative value. The latter is subject to the determination of two points. Is there any other system of which the educational value is equal, and of which the instructional value is superior? How far is it suitable for the class of minds upon which it is intended to impose it?

"The first question has already been dealt with so far as it concerns our present purpose. The second question I shall not answer myself. I prefer to place before you the words of one whom no one will accuse of indifference to classical acquirements. They are these: 'In my opinion, classical education is in itself the very best of all for those who have a certain tendency towards it, and those whose circumstances are such as will enable them not to be content with the merest rudiments, but who will proceed to the point at which they will realize some solid attainments. Terrible errors have undoubtedly been committed in the past—and in the past I include the days

of my own experience—in endeavoring to thrust the classics down the throats of everybody of a certain rank, quite irrespective of capacity and circumstance. I always bear this in mind . . . that the main purpose of education is to make the human mind a supple, effective, strong, available instrument for whatever purposes it may be required to be applied to.' Such is the evidence formally given before an Education Committee of the Flintshire County Council by Mr. Gladstone. On this, I propose three questions: Does the Latinity exacted from every medical student answer best to the description of 'merest rudiments' or of 'solid attainments?' Are —as regards medical students—'the terrible errors of the past' errors of the past only? Can the mind of a medical student be made as supple, effective, strong, and available an instrument for his purposes—so far as Nature has endowed him with faculties—by no education unless it includes Latin? I desire in future to give to the poorer student the greatest possible share of those advantages which are now enjoyed by the rich. Latin certainly stands in the way. He cannot have all. Which is the more important? Latin, or some other element of the rich man's more extended education? Should not, then, Latin be placed in the list of optional subjects? is one question which I should like to see discussed by the General Medical Council. But, indeed, this is not the only one. When the Council originally undertook to consider the subject of preliminary education, they would seem, judging by results, to have proposed to themselves this question: How best to secure that candidates shall have had that which commonly passes under the denomination of a public school education? For this I do not blame them. To have done otherwise would have put them into disaccord with public opinion. This no prudent body would do. However little it may owe its position to public suffrages, public opinion is the base of its operations. In thirty-two years great educational changes have come to pass in this country. I desire to see the whole question of preliminary education reopened, reinvestigated, reargued; and I will briefly state how, as it seems to me, the subject might be best dealt with.

"Let there be a Select Committee of the Council sitting with open doors. Let it take the evidence of two or three persons carefully selected from each of the following classes: public school masters, her majesty's inspectors of schools, head masters of training colleges, head masters of Board Schools. Let the primary subject of investigation be thus stated: In what way can it be best ascertained that a boy, aged 15, is of not less than average intellectual capacity? that he has for ten years been so trained as to have his intellect generally developed? The question is not what he has learned, but how he has learned it; not how much knowledge he has acquired, but whether he understands what he has acquired; not what he has thought about, but whether he has been trained to think at all.

"Inquiry as to what subjects will best serve such training, and which are the most useful in after years would, of course, follow; but if his then intellectual status is satisfactory, the boy is fit for differentiation into a science student. As to this part of his education, an analogous inquiry with the assistance of experts in science teaching should be undertaken. It is not superfluous to observe that there are at the present moment eighty-nine independent examinations, scattered all over the world, any one of which is accepted as qualifying for registration as a medical student. It is difficult to see how, under such circumstances, the Council can exercise a proper control over preliminary education; but it must in fairness be admitted that this is a matter of great difficulty, and with more than one side.

"I have to-night stated to you facts which I believe to be accurate, and arguments which I have striven to make fair. I have thus arrived at conclusions which I believe to be reasonable; these are also before you. I do not ask you to accept them; I only ask you to reconsider them at your leisure, and to form your own opinion of their validity. But you may say, What use in so spending time? Is there any probability that, however we may desire them, any of these things will be done? My answer is this: the General Medical Council consists of a number of men, many of whom are highly distinguished, and there is no one of them to whom I would refuse the credit of being earnest, thoughtful, and conscientious. I believe them all to be sincerely desirous to regulate their actions in accordance with public medical opinion. It is for you, if you are interested in these matters, to make that opinion. If you do so, I have complete confidence that what you desire will be done in substance; the precise form is a matter of no importance.

"Should you thus secure such an investigation into the preliminary and scientific education of medical students, the results might, I feel assured they would, benefit other classes besides our own. They would tend to avert a danger which now threatens schools of all grades. This danger is that instruction may crowd out education; for indeed it is possible—*propter scientiam sciendi perdere causas.*"—*Brit. Med. Journal.*

WHAT WE WANT.

What we want is the recorded observations of workers in the medical vineyard. Men who hibernate in their closets and indulge in day dreams may evolve by means of the proper equipment for scientific investigations that which is of value, but the practical worker can apply these deductions and test them in the severe school of experience; and we need just such evidence as these practical workers can give.—*Medical Mirror.*

THE NEW GERMAN PHARMACOPŒIA.

The new German Pharmacopœia, which will come into force next New Year's Day, will contain fifty drugs not included in the current work—such as antipyrin, condurango wine, gutta percha, napthaline, napthol, phenacetin, salol and sulphonal. For eighteen of these, formulæ are given. Fifty-eight of the drugs contained in the present pharmacopœia will not be found in the new one. One of these is quinine wine.

PRACTICAL NOTES.

THE MODES OF ADMINISTERING CARDIAC TONICS.

The therapeutics of cardiac affections has been greatly advanced recently, not only by the addition of numerous cardiac tonics to our list of remedies, but also by the acquirement of important details in the administration of the older remedies, by which their efficiency has been greatly advanced.

Gauthier, especially, has devoted himself to the study of this subject, and an analysis of his work as published in the *Wiener medizinische Blätter* of May 22, 1890, is well worthy of notice.

As is well known, the administration of digitalis in the form of powder or pill is apt to produce a vomiting or diarrhœa. The best form is that of an infusion made by macerating the digitalis leaves, and, when the time permits, it is this preparation which should always be used as the one which gives the most prolonged and intense action on the heart, and which is the most efficacious in producing diuresis. The infusion should be given in gradually decreasing doses. Digitalin is by no means a constant preparation, and it does not possess all the properties of the digitalis leaves. Nevertheless, the crystalized digitalin is of use where an extremely rapid action is desired, although ordinarily its action is too intense, and, therefore, dangerous, while its subcutaneous employment is extremely painful, and often produces abscesses.

Convallaria is also best employed in the form of an infusion, 8 to 10 parts being macerated in 1000 of water, to which syrup may be added, and administered the day in which it is made.

Convallarine, the active principle, may be employed in doses of ⅙ to ¾ or 1½ grains.

Strophanthus is best given in the tincture (the one officinal in the English Codex being the best) in 5-drop doses three times daily, although 10 to 20 drops may be given once or twice in the twenty-four hours in a single dose.

Adonis may be employed in the form of an infusion or decoction, or its active principle, adonidine, may be given. The infusion seems to be inconstant in its activity, and both of the watery preparations have an extremely bitter taste, which must be masked by syrup. Adonidine may be given in the quantity of from ⅙ to ⅓ grain in twenty-four hours. Its toxic action is ten times greater than that of digitalis. Caffeine is likewise a reliable remedy, provided it is given in sufficient dose, 15 to 30 grains being ordinarily required. This dose, should, however, not be exceeded without great care, as in larger quantities it is not free from danger.

The salts of caffeine are nearly insoluble in water, and are, therefore, not suitable for subcutaneous injections, although the double salts—the benzoate of sodium and caffeine—is an exceedingly valuable preparation. Sparteine may be used, either in the form of an infusion or decoction of the plant; or its active principle, sulphate of sparteine, may be employed, the latter being especially valuable for its action on the heart in doses of from ¾ to 4 grains, while the infusion possesses marked diuretic properties.—*Therapeutic Gazette.*

ANOTHER ANTISEPTIC, LYSOL.

Dr. Gerlach, of Wiesbaden, has described the antiseptic power and advantages of lysol, which he has recently used with much success in Wiesbaden. As a bactericide, it is more powerful than carbolic acid or creolin; it is less poisonous than either of these two; and, finally, it is much cheaper than either. Lysol is not confined to use in closets, stools, washings, etc., but may be applied anywhere in the domain of medicine without any danger of poisoning or of discomfort. The active principle in lysol is the creosote. Gerlach believes that the drug will be found to be of real value, and that it will come into general use. —*Pharmaceutical Record.*

MAIRET ON THE PSYSIOLOGICAL ACTION OF CHLORALAMIDE.

The author carried out a series of observations in respect to the action of chloralamide on the heart. It is claimed for this hypnotic of recent introduction that it has no effect on the cardiac beat, comparable to that of chloral. He has satisfied himself, however, that in whatever dose it is given, large or small, the pulse-rate promptly undergoes a marked and immediate acceleration. At the same time, there is flushing of the head and face. Another observation of note is the supervention of a period of excitement after the ingestion of chloralamide.—*London Medical Recorder.*

PERCHLORIDE OF IRON IN LEUCORRHŒA.

Of all remedies for simple leucorrhæa, the old tincture of perchloride of iron is the best, combined with hyoscyamus, opium, hop or Indian hemp, when the mucous membrane is in a state of irritation. Tepid or cold water injections, cold hip baths, etc., are useful local applications, with rest, and avoidance of occupations involving prolonged standing or pedal exercise.

Sometimes tannin, zinc or alum are valuable additions to the injections. When the discharge emenates from the glands of the os uteri, local applications of belladona and bicarbonate of potash are serviceable, two ounces of tincture and a teaspoonful of the alkali to a pint of water.—Editorial *Pharm. Era.*

SOCIETY PROCEEDINGS.

Johns Hopkins Hospital Medical Society.

Stated Meeting, February 17, 1890.

DR. WM. H. WELCH reported results of his

BACTERIOLOGICAL EXAMINATIONS OF CASES OF ACUTE CROUPOUS PNEUMONIA,

and exhibited cultures and microscopical specimens of the microörganisms found in these cases. In all of the cases examined, ten in number, the diplococcus pneumonia was found and isolated in pure culture. This organism is probably constantly present in croupous pneumonia, and the evidence that it is the specific cause of this disease is very strong. In the cases examined by Dr. Welch, roll cultures or plate cultures were made from the affected parts of the lungs, from the spleen, from complicating lesions and frequently from the blood and other situations. Nutrient agar, glycerine agar and gelatine agar, according to Guarnieri's formula, were the media usually employed for this purpose. The growth of the pneumococcus on the last mamed medium is particularly luxuriant. In addition mice and rabbits were inoculated with bits of hepatized lung, with the spleen, etc. In one instance the presence of the pneumococcus would have been overlooked in consequence of the prevalence of other organisms, if the precaution had not been taken to inoculate animals with the tissues. Dr. Welch expressed the opinion that the diplococcus pneumoniæ could not be said to be absent simply on the ground of negative results from cultures. This result must be controlled by the inoculation of susceptible animals. Moreover, even the failure to kill mice and rabbits by inoculation can not be considered conclusive evidence of the absence of the diplococcus pneumoniæ, for this organism may be present in the human body in cases of croupous pneumonia in a form incapable of killing rabbits or even mice.

One of the most interesting and extraordinary properties of this organism is the variation in its virulence when tested upon animals. All who have experimented with cultures of the diplococcus pneumonia have called attention to its rapid loss of virulence when cultivated in artificial media. It is important to note that a progressive diminution of virulence may occur likewise in the lungs and other organs where the pneumococcus is present in cases of croupous pneumonia. In one case of croupous pneumonia dying in the stage of grey hepatization Dr. Welch found very numerous colonies of the diplococcus pneumoniæ, mixed with a few colonies of the staphylococcus aureus in agar plate cultures from the consolidated lung. A rabbit inoculated with a piece of the lung died on the fifth day with extensive local reaction and large spleen. The pneumococci were abundant near the seat of inoculation, and were found in considerable number, although fewer than usual, in the blood. Plate cultures (agar) made from the swollen spleen (after burning thoroughly the surface) of this patient showed in very large number, colonies of the pneumococcus. No other species of organism was present in these cultures from the spleen. The same pneumococcus was likewise observed in cover-glass preparations from the fresh spleen. The organism isolated from the spleen conformed in every particular as regards its morphology, its behavior in artificial culture media, its short vitality, its color-reactions to the pneumococcus found in the lung, the so called Fraenkel-Weichselbaum pneumococcus. Nevertheless it was devoid of its customary virulence, for a mouse and a rabbit inoculated subcutaneously with a bit of the spleen survived, and mice and rabbits inoculated with pure cultures of the organism likewise survived, the only reaction being a small abscess or purulent infiltration of the tissues at the point of inoculation. In this case, therefore, the diplococcus pneumoniæ was present in large numbers in the hepatized lung in a weakened state as regards its virulence, and in the spleen in a condition incapable of killing rabbits and even mice. Every grade of virulence was observed in the pneumococci found in the different cases, from the degree just described as incapable of killing mice and rabbits up to the degree in which rabbits were killed in 36 to 48 hours by an acute septicæmia. In two cases the pneumococcus did not kill rabbits but it did kill mice, so that the latter animals are more susceptible and are to be preferred for inoculating tissues in cases of croupous pneumonia. In three cases rabbits survived the inoculation for more than five days, the longest duration being twelve days. Inoculation of rabbits with exudation present in the bronchi or in the trachea sometimes caused a rapidly fatal sputum-septicæmia even when the pneumococcus present in the hepatized lung showed weakened virulence. In general the impression was obtained that the most virulent forms of pneumococci are to be found in the sputum, in the freshly hepatized lung or at the margin of an advancing pneumonia, whereas the pneumococci present in advanced stages of hepatization and in the spleen are likely to be less virulent. This progressive diminution in virulence, as tested upon animals, of the pneumococcus in the consolidated lung and other organs in cases of croupous pneumonia is surely a significant circumstance. In no instance had Dr. Welch as yet been able to isolate the pneumococcus in a state capable of producing pneumonia in dogs, although not less than 5 cc. of a bouillon culture 24 hours old (in the thermostat at 37° C.) of the pneumococcus, obtained from a rabbit dead 40 hours after inoculation, had been injected directly

into the lung. Other observers, however, had obtained positive results by this method of inoculation. Others have found pneumococci producing more rapidly fatal septicæmia in rabbits than resulted from any of the cultures obtained from the cases examined by Dr. Welch.

In six of the ten cases the diplococcus pneumoniæ was found in pure culture in the hepatized lung, as determined by microscopical examination and by plate or roll agar cultures; in two cases it was present in combination with the staphylococcus pyogenes aureus; in one case, in addition to the pus staphylococci, the streptococcus pyogenes was present in considerable number; and in one case with gangrenous foci there were present, besides the diplococcus pneumoniæ and the pus staphylococci, a short oval bacillus and a long slender bacillus, not developing in plate cultures (ærobic cultures). In one of the cases in which the staphylococcus pyogenes aureus was present, several small abscesses had formed in the hepatized lung. In four cases, the diplococcus pneumoniæ was found in pure culture in the spleen, which in all of these instances was swollen and soft; in one case it was isolated from the kidney, and in one from the heart's blood. In all instances (five) in which the pleuritic exudate accompanying croupous pneumonia was examined by culture methods, the diplococcus pneumoniæ was found in this exudate. In three cases of empyema following acute croupous pneumonia (these do not belong to the ten cases now under consideration) the diplococcus pneumoniæ was found; in two in pure culture, in one in combination with staphylococcus pyogenes aureus and albus. The pneumo-bacillus of Friedländer was not found in any case.

Dr. Welch described the morphology and behavior in culture media of the diplococcus pneumoniæ. He had found that a convenient way of staining the capsules was to treat the cover-glass specimens, dried and treated in the usual way, with glacial acetic acid, and then, without washing off the acid, to drop on the cover-glass aniline-oil gentian-violet, which can be allowed to drain off and can be renewed two or three times. Attention was called to broad pale rods, corresponding to empty capsules, sometimes found in the fluid of empyema following pneumonia. These may be 10-30 mm. long and 2-3 mm. broad. They stain faintly, may be entirely empty, or may contain one or more deeply stained pneumococci. They correspond to the capsular substance around rows of pneumococci, the cocci having partly or wholly disappeared.

For staining sections, Weigert's fibrin stain had given most excellent results. A method which had yielded good and quick results was to dry thin frozen sections from the fresh organs upon the slide, and then to heat them for half an hour at a temperature of 110° to 115° C. These can then be stained like cover-glass specimens. This method is often employed in the laboratory for staining fresh tissues in general for microörganisms.

The statements of Fraenkel and others were confirmed as to the behavior of the diplococcus pneumoniæ in artificial culture media, its susceptibility to slight changes in the reaction and composition of the medium, its brief vitality, etc. As already mentioned, Guarnieri's gelatine-agar medium was found to be particularly suitable.

The history of our knowledge of this organism from its discovery by Sternberg in September, 1880, up to the present time, and the results and conclusions reached by the various investigators of its relation to croupous pneumonia, were briefly reviewed. The frequent presence of the pneumococcus in the saliva of healthy persons is, upon the whole, an assistance to us in the explanation of the various factors concerned in the causation of croupous pneumonia.

Illinois Army and Navy Medical Association.

A meeting to organize a society of medical men now living in Illinois who served in the Army or Navy during the war, was held at Springfield, June 26, 1890.

Dr. John H. Rauch called the meeting to order at 10 o'clock, was made temporary Chairman, and Dr. Starkweather temporary Secretary. Prayer was offered by Chaplain the Rev. Francis Springer.

The object of formation of this Association was stated, and letters read from over one hundred medical men heartily approving of same, and promising to coöperate in making the movement a success.

A committee upon permanent organization was appointed, consisting of Drs. John H. Rauch, W. J. Chenoweth, Decatur; N. B. Cole, Bloomington; H. W. Kendall, Quincy; and R. M. Lackey, Chicago.

Afternoon Session.

The report upon organization was received. The object of the Association was defined to be the promotion of social and historical purposes, and the discussion of medical subjects connected with the late war. The officers consist of one President, five Vice-Presidents, a Treasurer, a Secretary, and one member from each Congressional District. These shall constitute a historical committee.

This committee, in connection with the officers, shall constitute the executive committee.

The membership fee was placed at two dollars per year, power being given to the executive committee to increase the amount if deemed necessary.

The meetings are to be held annually, at such

times and places as may be determined by the Association, or executive committee. In regard to *eligibility*, membership was extended to (1) all reputable physicians now living in Illinois, whether in practice or not, who served in the Army or Navy during the late war, regardless of the State from which they came. (2) All who were surgeons or acting assistant surgeons, and who were with Illinois troops, and are now non-residents of the State.

This report, and purposes of organization, were discussed by Drs. Barnes, Chenoweth, Andrews, Kendall, Johnson, Agnew, Hughes, Buck, Hall, French, Kelso, Copestake, Skeer, Wilcox, and others.

Drs. E. L. Phillips, John C. Copestake and H. A. Kelso, a committee on nominations, reported, and the following were elected, officers to serve for one year:

President, Dr. H. A. Johnson, Chicago; Vice-Presidents, Drs. H. E. Barnes, Bloomington; H. W. Kendall, Quincy; Ira Brown, Milford; A. B. Agnew, Samoth; E. Gurlick, Alton; Treasurer, Dr. W. J. Chenoweth, Decatur; Secretary, Dr. J. H. Rauch, Chicago.

The day was pleasantly spent, informal discussions and reminiscences fully occupying the time. A biographical sketch of the members is proposed. One hundred and twenty-seven members are already enrolled.

FOREIGN CORRESPONDENCE.

LETTER FROM PARIS.

(FROM OUR REGULAR CORRESPONDENT.)

Trephining of the Skull for Traumatic Cephalalgia of Ten Months' Duration—Operation for the Removal of a Tumor of the Brain—Operation on the Cranium of a Microcephalous Child—Researches on the Dynamogenic Injections with the Testicular Fluid of Animals—Treatment of Purulent Pleurisy.

At a recent meeting of the Surgical Society of Paris, Dr. Terrillon read the notes of a case of trephining the skull for traumatic cephalalgia of ten months' duration. The patient was an officer in the Hussars, who had received a violent blow upon his helmet. This caused a severe contusion, but there was no wound. A short time afterwards giddiness and pains in the head supervened. At the end of six months the pains became continuous, with exacerbations, especially localized at the upper part of the left side of the frontal bone. The patient could not sleep at night, and he began rapidly to lose flesh. Various drugs were tried, but without avail. Incisions into the integument over the painful spot were practiced, but also without result. Finally trephining was decided upon and performed by the author. The bone was extremely thickened, probably from osteitis. The dura mater was healthy, and an incision into it showed that there was no lesion underneath. The recovery was rapid, and the pains disappeared, and up to the time of the publication of the notes there had been no recurrence of the trouble.

I may here recall a somewhat similar operation that was performed at the beginning of the year by Dr. Péan, at the Hôpital Saint Louis, though not for the same complaint. It was for the removal of a tumor of the brain. The patient had suffered from attacks of unilateral epilepsy for seven or eight years. He had been invalided from the military service for this affection. The epileptic attacks became more frequent, coma occurred, and there was visual hemiplegia. Dr. Gélineau, the private physician of the patient, was able to determine precisely the place occupied by the tumor. Taking his measurements from the external angle of the tragus, and from one tragus to the other tragus, in order to find the median line, about 4½ centimeters behind in the triangle formed by the junction of these lines on the left side of the cranium in the neighborhood of the sinus, he determined exactly the spot in which the tumor should be found, and from the character of the epilepsy he indicated not only the convolution but the depth at which the tumor was probably situated, and its probable size. He concluded that the tumor was situated in the convolution of Rolando. Before taking any further steps, Dr. Ballet, an Agrégé of the Faculty of Paris, and Hospital Physician, was called into consultation. Dr. Ballet had marked in ink the spot for operating, when Dr. Péan removed a circle of the skull of about 3 centimetres; the dura mater was healthy. Following the advice of Dr. Ballet he incised it crucially, and found below the pia mater covered with pus, and a distended vein occupying half the wound. The pia mater, which was infiltrated and thickened, was divided and the brain incised. Dr. Péan then arrived at the tumor, which he removed by "morcellement," that is, by piecemeal, cutting into the sac and removing it piece by piece towards the periphery. The tumor being friable, he used a curette and took away even the capsule, which was formed by the brain. This tumor was of the size of a small apple. A small drainage-tube was introduced, the dura mater was sutured with catgut, and the soft parts with a hair suture, and antiseptic dressings were applied. Union by first intention was obtained without a drop of pus. During the night preceding the operation there had been thirty-seven epileptic attacks; on the night following it there were only five, and five or six days afterwards there were none. Coma and delirium disappeared towards the tenth day, the complete paralysis of the two limbs disappeared on the fifteenth day. The

limbs gradually recovered their movements, and at the end of a month the patient completely recovered consciousness, and the limbs recovered all their power of movement.

Another very interesting operation on the cranium was lately performed by Prof. Lannelongue on a microcephalous child 4 years of age. The patient, a little girl, appeared to be no more than two years of age. Her skull was only about one-third the normal size. She could not walk or stand on her legs without support. She was never seen to laugh, and nothing seemed to interest her. Dr. Lannelongue attributed the condition of the child to cerebral lesions as well as the narrowness of the cavity of the skull, and he thought that the rational indication in this case was to open the skull and thus relieve the brain from pressure, as has already been done in other abnormal cases with very encouraging results. Dr. Lannelongue therefore decided on performing craniotomy in this case. He began by making a long and narrow incision along the median line of the skull, corresponding to the sagittal suture, and extending from the frontal to the occipital suture. He then removed from the left side of the skull, which was flatter than the right side, a piece of bone measuring nine centimetres long by six millimetres wide. The dura mater was left intact and the superficial wound was reunited without drainage. Union took place by first intention. The operation was performed on May 9, and on June 15 a great change was noticed, for the child was quiet, laughed, and seemed to understand what was said to her. She could stand up unaided, and ceased crying; the trembling of the limbs also ceased. The cicatrization of the wound is complete, and the child's intellect seems to develop gradually. A short time after the above operation a similar one was performed by Dr. Lannelongue on another child, but it is as yet too early to judge of the results.

At a recent meeting of the Société de Biologie, Professor Brown-Séquard communicated a note confirming the results of his preceding researches on the dynamogenic effects of the hypodermic injections with the testicular fluid of animals, and has since discovered that this fluid has not only a rejuvenating effect, but that it possesses other therapeutical virtues. He now employs it in the form of enemata by administering from 40 to 50 grams of water in which is rubbed up two testicles of a guinea pig, from which he has obtained the best results. In support of his affirmations, the author cited a certain number of cases of cures or of ameliorations he had obtained by this treatment in the most diverse maladies, such as intermittent fevers, ataxy, hemiplegia of organic origin, insomnia, cardiac intermittence, dyspepsia, anæmia, and even leprosy. But the most remarkable case was the cure of a metrorrhagia in a woman, in whom was injected hypodermically some of the semen of her husband, who was himself a medical man. From further study of the subject, Dr. Brown-Séquard concludes that the testicular fluid has, on the nervous system, a powerful tonic effect.

It has been objected that these hypodermic injections acted only by suggestion. To which Dr. Brown-Séquard responded that he is far from denying the influence of suggestion in the affections dependent on the nervous system, and, as he had already said, that it is on the cerebro-spinal axis that the testicular fluid acts. It is not, therefore, by a simple theoretical refutation that one can combat the theory of suggestion; the hypothesis can be refuted only by experiments; these experiments have been performed, and the following observations were made: It was first remarked that, in a certain number of cases several injections should be practiced in order to obtain the desired result, as if a cumulative effect should be obtained. This first proof proved insufficient. In a patient injections of pure water, slightly colored, were practiced; in announcing to him marvellous results, no effect whatever was obtained. In the same patient, injections of testicular fluid, practiced some days later without apprising him of the change of the fluid, produced salutary effects. This proof is of great value; but the most striking demonstration of the inanity of the hypothesis of suggestion has been furnished by Dr. Mairet, of Montpellier, Dr. Mairet had injected the testicular fluid into lunatics, who, it is known, are essentially unapt for suggestion, and this was done with complete success.

At a recent meeting of the Société des Hôpiteaux Dr. Bucquoy communicated some observations of the highest interest on the treatment of purulent pleurisy. They clearly show that "lavage" of the pleura after thoracotomy, and less so several and repeated lavages, have not the importance which is accorded to them. He summarized his remarks by the following precepts: To operate early, without which there will be produced thick fibrous shells which cicatrize with difficulty. To practice the operation according to the rules of antisepsy, and to apply antiseptic dressings; to introduce a large drain, permitting the easy escape of the discharges, and frequently to wash the drain to prevent its being blocked up. The cure is often very rapid, the pus becomes serous, and diminished in quantity. Eventually the tube drops out and cannot be put back into its place, and in three days after the wound is cicatrized.

A. B.

AMERICAN DERMATOLOGICAL ASSOCIATION.—The fourteenth annual meeting of this Association will be held at Richfield Springs, New York, on September 2d, 3d and 4th.

DOMESTIC CORRESPONDENCE.

The New York State Examination Act.

To the Editor:—The publication, in THE JOURNAL, of the Act establishing State medical examinations in New York, may give pertinence to comments on its principal provisions, some of which concern only the profession in the State wherein they are to be operative, while others are of interest—either as examples or warnings—to all who desire the advancement of medical education, and who seek such advancement through legislation under our peculiarly liberal system of representative government, in which every voting citizen—and, *a fortiori*, every legislator—has an inalienable right to form a conclusive opinion on all subjects, whether within or beyond the range of his information and experience.

Under such a system, and with inevitable regard to political expediency, the erection of separate examining boards from the homœopathic and eclectic sects was, perhaps, a "*conditio sine quâ non*" for the framers of the bill, who have endeavored to counteract the mistake of recognizing "schools" as founded on the single and subordinate question of drug administration, by ordaining that the same questions on other subjects shall be propounded to all candidates, from whatever "school."

A greater difficulty, however, arose in the selection of an examining board to represent the non-sectarian profession at large, and this difficulty can hardly be regarded by the readers of THE JOURNAL as satisfactorily settled by the enactment that this board shall consist "exclusively" of members of the State Medical Society. This Society, as everyone conversant with its transactions will gladly admit, contains many men of distinguished professional attainments; but since its withdrawal from affiliation with the American Medical Association by the adoption of a "new code," it can no longer, with any show of reason, claim to speak officially for the profession from which it has voluntarily separated itself, and of which, even in its own State, the majority is opposed to its tenets. According to its report for 1889, its members numbered less than 200, and none of these, in capacity of such membership alone, would be recognized by the National Association. Yet from this small circle are to be "exclusively" appointed the arbiters of questions which concern the whole profession throughout the United States.

Not only the appointment of the three "exclusive" boards of State examiners, but also the choice of the questions to be put to the candidates for a license, are functions allotted to the Board of Regents of the University of the State of New York, consisting of nineteen persons, appointed by the Legislature, who receive no salary for their service, and who are legally required to attend but one meeting per annum. Among them are several gentlemen justly eminent in journalism, law, politics, and other vocations not connected with biological sciences; but, as far as I am informed, the only medical member of the board is a homœopathic practitioner. None of them, probably, would concede the competence of a board of physicians to control the editorial work of a newspaper, to supervise the practice of law, or to direct the management of a railway; is it quite unpardonable on our part, while admitting the excellence of their accomplishments in their respective callings, to doubt their competence to pass a final judgment upon the qualifications of physicians and surgeons? For, be it noted, after either of the medical examining boards (or "one or more members thereof") shall have reported its (or his) satisfaction with the answers given by a candidate, these answers are to be transmitted to the Regents, who, if the said candidate, "in their judgment, be duly qualified therefor," shall issue to him their license to practice medicine and surgery. Let us suppose—of course, only for the sake of argument—that a single member of, say, the eclectic examining board should be deputed to scan all the examination papers of a very incompetent candidate, and through his own ignorance or forgetfulness of physiology, surgery, pathology, and a few other subjects, or else through a laudable desire to increase the numerical influence of his peculiar "school," he should mark these papers up to ninety-nine, when their desert was near zero. Would the "judgment" of the Regents in such a case be valid as regards the mechanism of thermogenesis, the localization of cerebral or spinal lesions, the diagnosis of mediastinal tumors from aortic aneurism, the technique of ligation of the femoral artery, the histological difference between sarcomata and carcinomata, the management of impacted labor, or even the discrimination between eczema and small-pox?

The worst feature of the Act—derived, perhaps, from the practice of the Civil Service Commission in other fields—is the provision that all the examinations "shall be conducted in writing;" the candidates not being in any way brought into personal relation with the nominal examining boards or with the Regents. The utter insufficiency of such a method has been too often shown to need further discussion. A first-rate examination paper in anatomy may be (and has been) written by a "book-crammer" who has never spent an hour in the dissecting-room, and who is practically worse than ignorant of the subject; and so of other branches of medical education. What we want to elicit by examination is, not the unintelligent retentiveness of a man's memory, but his ability to apply the knowledge which he has understandingly gained to varying circum-

stances; and in medicine, just as tuition is becoming more and more clinical and experimental, so examinations must necessarily follow the same course; and not only the teacher, but the examiner too, must be a master of his subject, and an analyst of character as well. The late Dr. J. C. Dalton, than whom there were few keener examiners, once said to me that, had he no other alternative, he would rather talk to a candidate for twenty minutes, without asking him a single technical question, than attempt to judge his qualifications by reading a ream of written answers, and I imagine that almost all experienced teachers will agree with him.

A singularly ungrammatical penultimate section, apparently designed to conserve the superfluous contingent emoluments of county clerks, declares that, after a graduate shall have obtained the Regents' license (which is a matter of official State registration) empowering him "to practice medicine and surgery in the State of New York," he shall not be punished "if called to attend isolated cases in another county but not residing or habitually practicing therein." Presuming that the residence and habitual practice are meant to apply to the physician, and not to the "isolated cases," it would seem that, instead of a State qualification, we shall have only a county qualification, after all, and that the *ridiculus mus* produced by the preposterous parturition of the Act will vanish through a very small hole, leaving the really important affairs in a worse condition than before the law received gubernatorial approval despite the protest of a large part of the regular profession.

ALFRED L. CARROLL, M.D.
30 West Fifty-ninth St., New York.

Letter from the Catskills.

The Secretary of the American Medical Association Climbs the Catskills, Stands on Inspiration Point, Gazes into the Depths of the Kaaterskill Falls, and gives to our readers Some thoughts on Mountain Scenery and Health Combined.

To the Editor:—I dare to offer to your readers from the lofty Catskills, and at about the highest point in the range, some thoughts on mountain scenery and health combined in place of a didactic or clinical lecture. The rare atmosphere united to the grand scenery gives one a feeling of exhileration which lifts him above all thoughts of disease, or its concomitant mediation. Even hygiene may almost be ignored, as health here really runs itself. We are so often treated to the phrase "the Switzerland of America" that the term seems to mean nothing, but for grandeur of mountain scenery, by which humanity lapses into nothingness, this particular portion of New York surpasses everything on this continent. Few of the hundreds of thousands of people living within a radius of 250 or 300 miles in the teeming cities of New York, Brooklyn and Philadelphia are aware of their proximity to such wonders of nature, and that within half a day's journey they could gratify their sight with a view eclipsing all that we are taught to regard as accessable only after a long and fatiguing sea voyage or railroad trip.

A walk of half a mile, from the hotel, which affords from its own porch a remarkable bird's-eye view of the valley of the Hudson, and the river of that name about eight miles away, winding its way through hundreds of thrifty towns and villages, brings us to Inspiration Point, which enables the spectator to stand on a projecting point of rock and scan the entire valley laid out like a map, shaded in varying hues of green. This point is about 2,700 feet above the level of the sea, and is reached by a circuitous road climbing the sides of the mountain from the station nearly two miles below. This station, already an elevated spot, is connected with the world below by means of a narrow gauge road ascending by a quite sharp grade. Another beautiful spot is the Kaaterskill Falls, where a pretty mountain stream after a series of jumps from one rocky ledge to others finally disappears in a basin many feet below to lose itself in a ravine, almost entirely hidden from view by a heavy growth of mountain timber.

From several points, the sun may be watched as he suddenly bursts upon the world on the dawn of a new day, or bids it farewell as he sinks to rest. Although this is the tenth year that this mountain has been opened to the world who seek for health, for scenery and the like, yet the marvellous scenes of beauty and grandeur have scarcely begun their development, and new paths, etc., are constantly being opened by the explorers. Before bidding adieu to my readers, I must urge them to come here, if but for a few days, and I feel sure they will say that I have told them little of what they will be sure to enjoy. Nor is the health and appetite built up without something substantial to aid in its maintenance. Ten thousand acres of land which surround the hotel belong to it, not only for pleasure but for the procuring of meats of all kinds, milk, butter and the other adjuncts of good living, thus assuring the mountain climbers the luxury of the best meals to assuage the pangs of appetite which are so sure to attack them at stated intervals in the midst of their explorations.

When we add to this the admirable manner in which they are served, affording so much comfort which often is lacking in the hotels of the lower world, we feel that we relieve any who may be tempted to come up here of that fear which so often attacks the hungry traveler when seated at the average hotel table. Later, opportunity may

offer to give a brief glance at some of the hygienic points to be obtained by a pilgrimage to this Mecca by those who are seeking the often phantom goddess Hygiea.

W. B. ATKINSON.

Hotel Kaaterskill, N. Y., Aug. 9, 1890.

The Heart on the Right Side—No Right Lung.

To the Editor:—Being called to one of our hotels about ten days ago to see a patient, as I was preparing to leave, a gentleman in the office asked me to feel his heart and see if I had ever seen anything like it. I found the heart to beat firmly and with unusual force against the right chest wall. I could detect no apex beat, but it seemed as if the whole side of the heart struck directly against the wall. I could detect no beat or sound on the left side. I saw clearly that he either had a displaced heart or that it was a congenital malformation. It being after tea, and having other engagements, I made no further examination, but asked him to call at my office at some convenient time to him, that I might make a thorough examination of his case.

On the morning of the 12th, at about 5:40 A.M., some five or six days after I had first seem him, I was summoned to the hotel hurriedly to see him. On my arrival found that he had died about fifteen minutes before with a pulmonary hæmorrhage. I took his name and occupation and had him carried to an undertaker's establishment where the costal cartilages were cut and the anterior chest wall turned back, and I now give the results of the autopsy:

E. F. W., æt. about 36, a commercial traveller, slender and seemed to have a delicate constitution, died about 5:45 A.M., July 12. Post-mortem showed the heart on right side of the chest. No right lung; left lung well developed but studded with tubercular deposits. The left side of the heart and the auricle natural. The right side and auricle unusually large, giving the heart a one-sided appearance. The enlarged right side evidently striking against the right chest wall at each beat. The heart, with its pericardium, being the only thing on the right side except where a portion of left lung protruded over to right of sternum. There was no part of the right lung, nor had there ever been any. It was a case of congenital malformation.

I was anxious that these specimens be preserved, but could not have it done. I report this thinking it of interest to the profession.

Drs. Cason, Rochelle, Denpree, Henderson, and perhaps others of this city examined the case very carefully also. J. A. CROOK, M.D.

Jackson, Tenn., July 15, 1890.

ASSOCIATION NEWS.

Report of the Treasurer of the Rush Monument Fund to the Forty-first Annual Meeting of the American Medical Association.

Gentlemen:—I have the honor to report the condition of the "Rush Monument Fund" as follows:

Cash received from Dr. J. M. Toner, late Treasurer, July 13, 1889	$1,195.69
Contributed since the Newport meeting:	
Arnold, W. G., Pawtucket, R. I.	1.00
Burgdorf, Augustus, Washington, D. C.	5.00
Boston, C. H., New York City	1.00
Best, Dr. J. E., Arlington Heights, Ill	1.00
Barker, R. W., Washington, D. C	5.00
Bulkley, Dr. J. W., Washington, D. C.	5.00
Conant, H., Pawtucket, R. I.	5.00
Carter, Dr. C. C., Pawtucket, R. I.	5.00
Davis, Dr. Rob't T., Fall River, Mass.	1.00
Dearing, Geo. T., Washington, D. C.	5.00
Fiske, Dr. S. F., Pawtucket, R. I.	2.00
Gaylord, Dr. W. G., Pawtucket, R. I.	10.00
Goff, Dr. D. L., Pawtucket, R. I.	5.00
Gardner, Dr. Geo. W., Pawtucket, R. I.	1.00
Gilman, Dr. Jno. H., Pawtucket, R. I.	1.00
Godding, Dr. W. W., Washington, D. C.	5.00
Haskell, Dr. W. H., Pawtucket, R. I.	5.00
Hill, Dr. L. G., Dover, N. H.	1 00
Jenks, Dr. S. A., Pawtucket, R. I.	5.00
Jenks, Dr. James M., Pawtucket, R. I.	10.00
Johnson, Dr. H. L. E., Washington, D. C.	5.00
Kelly, Jno. R., Washington, D. C.	5.00
Kalusowski, Washington, D. C.	2.00
Littlefield, Lt. Gov. O. G., Pawtucket, R. I.	5.00
Lee, J. Wm., Washington, D. C.	10.00
Lovejoy, Dr. J. W. H., Washington, D. C.	4.00
Lothrop, A. M., Washington, D. C.	5.00
Metcalf, Hon. H. B., Pawtucket, R. I.	5.00
McClelland, W. F. (Treas.) Denver, Col.	50.00
Mason, Dr. R. D., Pawtucket, R. I.	2.00
Morrison, E., Washington, D. C.	5.00
Moore, Wm. G., Washington, D. C.	5.00
Parks, Dr. W. A., Pawtucket, R. I.	1.00
Patterson, Dr. A. C., Washington, D. C.	5.00
Patterson, Dr. D. C., Washington, D. C.	5.00
Patterson, Dr. T. H., Chicago, Ill	1.00
Palmer, Dr. Wm. G., Washington, D. C.	5.00
Reyburn, Dr. Robt., Washington, D. C.	5.00
Schaeffer, Dr. E. M., Washington, D. C.	1.00
Sheldon, Dr. H. H., Pawtucket, R. I.	1.00
Stearns, Hon. H. A., Pawtucket, R. I.	2.00
Sell, Dr. Ed. H. M., Allentown, Pa	5.00
Stack, Dr. Maurice J., Washington, D. C.	5.00
Speare, W. R., Washington, D. C.	5.00
Stanton, Dr. J. O., Washington, D. C.	5.00
Sothoron, Dr. J. T., Washington, D. C.	5.00
Snow, Dr. A. P., Winthrop, Me	2.00
Toner, Dr. J. M., Washington, D. C.	4.00
Townshend, Dr. Smith, Washington, D. C	5.00
White, J. Harrison, Chicago, Ill	10.00
Witmer, Dr. A. H., Washington, D. C.	5.00
Walter, Jr., Dr. J., Washington, D. C.	5.00
	$1,459.69

On a careful examination of this report it will be seen that of the $264 contributed since the Newport meeting, $66 were from Pawtucket, R. I., secured through the personal solicitations

of Dr. J. O. Whitney of that place, and $132 in Washington, in response to personal appeal. I think this may be regarded as an indication of what could be done by similar work in other towns and cities throughout the country. A little effort on the part of the profession would secure the completion of the monument in 1892. Shall we not make it?

Since the above, the following sums were received at Nashville:

Armstrong, C., Carrolton, Ill.	$1.00
Berkemeyer, L. C., Allentown, Pa.	1.00
Bishop, W. T., Harrisburg, Penn.	5.00
Baily, Wm., Louisville, Ky.	1.00
Brower, D. R., Chicago, Ill.	1.00
Bucher, J. Riley, Lebanon, Penn.	2.00
Bowen, A. B., Maquoketa, Iowa	2.00
Christmas, J. D., Allentown, Penn.	1.00
Cauley, Morris J., Allentown, Penn.	1.00
Clemens, H. S., Allentown, Penn.	1.00
Colvin, Darwin, Clyde, Ohio	1.00
Davis, J. W., Smyrna, Tenn.	1.00
Dibrell, A., Van Buren, Ark.	1.00
Erdman, J. D., Allentown, Penn.	1.00
Erdman, W. B., Allentown, Penn.	1.00
Evarts, O., College Hill, Ohio	5.00
Grim, H. A., Allentown, Penn.	1.00
Heistand, Daniel, Allentown, Penn.	1.00
Herbst, H. H., Allentown, Penn.	1.00
Hartzel, Wm. H., Allentown, Penn.	1.00
Hassler, W. A., Allentown, Penn.	1.00
Herdmon, W. H., Ann Arbor, Mich.	1.00
Kistler, A. L., Allentown, Penn.	1.00
Keller, James A., Hot Springs, Ark.	10.00
Kauffman, J. S., Blue Island, Ill.	2.00
Lear, John, Allentown, Penn.	1.00
Loving, Starling, Columbus, Ohio	1.00
Logan, S., New Orleans, La.	5.00
Lenoir, B. B., Lenoir P. O., Tenn.	1.00
Martin, E. G., Allentown, Penn.	1.00
Martin, Chas. D., Allentown, Penn.	1.00
Marten, Alfred G., Allentown, Penn.	1.00
Martin, Thos. J., Allentown, Penn.	1.00
Miller, A D., Allentown. Penn.	1.00
McComas, J. D., Oakland, Md.	5.00
Otto, C. J., Allentown, Penn.	1.00
Richard, P. L., Allentown, Penn.	1.00
Romig, Geo. M., Allentown, Penn.	1.00
Riegel, H. H., Allentown, Penn.	1.00
Stem, P. E., Allentown, Penn.	1.00
Stilz, P. H., Allentown, Penn.	1.00
Slough, F. J., Allentown, Penn.	1.00
Schaeffer, C. D., Allentown, Penn.	1.00
Strong, C. *et. al*, Portland, Oregon	14.00
Schenck, W. L., Osage, Kan.	1.50
Sloan, A. B., Kansas City, Mo.	1.00
Starkey, Horace, M., Chicago, Ill.	1.00
Shelden, W. K., Williamsport, Tenn,	2.00
Twitmyer, J. H. Sharpsville, Penn.	1.00
Wiggins, T. H., Litchfield, Conn.	5.00
Yeager, Norton R., Allentown, Penn.	1.00
	$97.50
Amount brought forward	$1,459.69
	$1,557.19
Disbursements as per vouchers, $17.50	
Balance cash in Bank $1,539.69	
	$1,557.19

D. C. PATTERSON,
Treasurer.

NECROLOGY.

Death of Prof. J. Adams Allen, A.M., M.D., LL.D., Dean of Rush Medical College.

Dr. J. Adams Allen, the well known physician, died at his residence, No 2001 Michigan Avenue, Chicago, after a lingering illness of nearly three years. Few men were better known in the profession, and his death, though not unexpected, will nevertheless bring a fresh sorrow to many hearts.

Jonathan Adams Allen was born in Middlebury, Vt., January 16, 1825. His maternal ancestors came from England in the Mayflower in 1620, and his paternal ancestors arrived in this country from Wales in 1634, having been driven to that country from England by the exigencies of civil war at a remote date. His ancestors on both sides were, therefore, English. Their descendant, Dr. Allen, was prepared for college at the early age of 9 years, the result of which procedure was to impair his health and superinduce symptoms of a speedy decline. He was then exiled from study temporarily, and went into the country, where special pains were taken to counteract the ill effects of premature mental application. In winter he was allowed to pursue light study, and this method being followed until he was 16, he became possessed of a sturdy physique that has stood him in good stead during his active life, and the performance of the exacting duties of his profession. In 1845 he graduated with the degree of B.A., and during December, 1846, with the degree of M.D.

In January, 1847, Dr. Allen married Miss Mary Marsh, of Kalamazoo, Mich., and the succeeding day visited his first patient. Since this first patient the recital of Dr. Allen's life would be a narration of the achievement of the highest honors in his profession—of a life of unwearied application, of indomitable perseverance, and of persistent instruction. He has occupied numerous chairs in Rush Medical College, accepting the chair of Professor of Theory and Practice of Medicine in 1859, when he came to Chicago, and holding it up to 1890, or when his sickness compelled him to resign.

As a result of his extended studies and varied investigations, the students of Rush Medical College esteem him the "versatile uncle," as he has been familiarly called by the students and alumni of the college for many years, and whose didactic discourse always remained in their memory, such was his happy faculty of imparting instruction. Every study that Dr. Allen has undertaken he has beautified by his eloquence and literary talent; in every phase of existence wherein he has lived, he has been honored and esteemed as few men are. President of Rush Medical College, Grand Master of the Masons of Michigan,

Grand Commander of Knights Templar, Honorary of the Thirty-third Scottish Rite, Northern Jurisdiction; the chosen orator on occasions of celebration, successful editor and correspondent, his works live after him and will endure.

Dr. Allen has been surgeon for the Chicago, Burlington and Quincy Railway for twenty-four years. He has in his travels gained a fund of knowledge which he has treasured up in a series of journals which, if published in full, would fill several octavo volumes. He has made the tour of Europe, Egypt, and Morocco, and some few of his notes of travel have been published.

Dr. Allen leaves a son, Charles L. Allen, the lawyer, and a daughter, the wife of Charles Haines, of this city.

Christian Faye, M.D.

Dr. F. Christian Faye, of the University of Christiania, died May 5 in his eighty-fourth year. He was for many years the professor of medicine and the prime mover in many progressive movements at that university. He also enjoys the honor of having been the founder, in 1858, of the Academy of Sciences of Christiania.

MISCELLANY.

LETTERS RECEIVED.

Mr. M. J. Lawson, Dr. R. J. Dunglison, Philadelphia; Dr. A. H. Cooke, Chicago; Dr. R. T. Venemann, Troy, Ind.; Dr. B. W. Hall, Bowman, Ga.; Dr. A. Jewett, Barnard, Vt.; Dios Chemical Co., St. Louis, Mo.; J. H. Bates, Dr. J. A. Cutter, Dr. M. C. Holmes, Jerome Kidder Mfg. Co., New York; Dr. E. K. Nash, Montrose, O.; Dr. B. A. Watson, Jersey City, N. J.; Morgan Bates, Chicago; H. Soule, Ann Arbor, Mich.; Dr. Alex. Boggs, Paris, France; John Parmenter, Buffalo, N. Y.; Dr. E. Grissom, Denver, Col.; Dr. D. M. Wick, New Hartford, Ia.; Drs. M. Myers & O'Brien, Butte, Mont.; Dr. W. Wyman, Washington; Dr. L. D. Mason, Greenwich, Conn.; R. Law, Vancouver, Canada; Dr. I. S. Stone, Lincoln, Va.; Dr. L. H. Forman, West Milford, W. Va.; Dr. W. C. Townes, Chattanooga, Tenn.; Dr. E. Chenery, Boston, Mass.; Lovell Washer Co., Erie, Pa.; Dr. W. N. Pringle, Conemaugh, Pa.; Thos. F. Goode, Buffalo Lithia Springs, Va.; W. D. Kline, Nashville, Tenn.; Dr. G. V. Woolen, Indianapolis, Ind.; Kirkpatrick & Alexander, Monmouth, Ill.; Dr. F. W. Dimmitt, Oneida, Ill.; Dr. J. B. Edwards, Mauston, Wis.; Dr. S. H. Foy, Johnson City, Tenn.; Dr. J. E. Hollingsworth, Gazette, Mo.; Dr. B. J. Platte, Waterbury, Conn.

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from August 9, 1890, to August 15, 1890.

By direction of the Secretary of War, the ordinary leave of absence granted Major James P. Kimball, Surgeon, in S. O. 152, July 1, 1890, from this office, is changed to leave of absence on surgeon's certificate of disability, with permission to leave the Div. of the Missouri. Par. 7, S. O. 182, A. G. O., August 6, 1890.

Major Daniel G. Caldwell, Surgeon, is granted leave of absence for one month and fifteen days, to take effect about August 15, 1890. By direction of the Acting Secretary of War. Par. 1, S. O. 176, A. G. O., Washington, July 30, 1890.

By direction of the Acting Secretary of War, Capt. William Stephenson, Asst. Surgeon, now on duty at Columbus Bks., O., is assigned to temporary duty at Jefferson Bks., Mo., during the absence on leave of Major Daniel G. Caldwell, Surgeon, and will report accordingly. On the return to duty of Major Caldwell, Capt. Stephenson will rejoin his proper station. Par. 2, S. O. 176, A. G. O., Washington, July 30, 1890.

Official List of Changes in the Medical Corps of the U. S. Navy for the Week Ending August 16, 1890.

Medical Director P. S. Wales, detached from Medical Examining Board, and resume present duty at Museum of Hygiene.

P. A. Surgeon H. E. Ames, ordered as member of Medical Examining Board in addition to present duty.

P. A. Surgeon J. S. Sayre, detached from Navy Yard, New York, and to the U. S. S. "Ranger."

Asst. Surgeon J. H. North, Jr., ordered to the Navy Yard, New York.

Asst. Surgeon George H. Barber, detached from the U. S. S. receiving ship "Vermont," and to the "Pensacola."

Asst. Surgeon L. L. von Wedekind, detached from the "Pensacola," and to the "Vermont."

P. A. Surgeon E. W. Auzal, to temporary duty at Naval Academy to examine candidates.

P. A. Surgeon H. B. Fitts, detached from U. S. S. "Pinta," proceed home and wait orders.

P. A. Surgeon E. P. Stone, detached from the U. S. S. "Independence," and to the "Pinta."

Asst. Surgeon J. M. Whitfield, detached from the Monitors, and to Naval Hospital, Norfolk.

Surgeon Joseph Ayers, ordered to Naval Academy to examine candidates for admission.

Surgeon Geo. H. Bright, ordered to Naval Academy to examine candidates for admission.

Asst. Surgeon Geo. T. Smith, detached from Naval Hospital, Norfolk, and to the U. S. S. "Independence."

P. A. Surgeon S. S. White, detached from Marine, and to the Naval Rendezvous, San Francisco, Cal.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine-Hospital Service, for the Two Weeks Ending August 12, 1890.

Surgeon H. W. Sawtelle, granted leave of absence for fifteen days. August 8, 1890.

P. A. Surgeon W. A. Wheeler, granted leave of absence for thirty days. August 5, 1890.

P. A. Surgeon D. A. Carmichael, granted leave of absence for thirty days. August 2, 1890.

P. A. Surgeon C. T. Peckham, granted leave of absence for thirty days. July 28, 1890.

P. A. Surgeon R. P. M. Ames, granted leave of absence for fourteen days. August —, 1890. To proceed to Shreveport, La., as inspector. August 5, 1890.

P. A. Surgeon P. C. Kalloch, granted leave of absence for seven days. July —, 1890.

Asst. Surgeon J. C. Perry, to proceed to Wilmington, N. C., for temporary duty. July 31, 1890.

Asst. Surgeon A. C. Smith, granted leave of absence for thirty days. August 11, 1890.

Asst. Surgeon G. B. Young, leave of absence extended twenty days on account of sickness. August 2, 1890. Upon expiration of leave, to proceed to New Orleans, La., for temporary duty. August 8, 1890.

Asst. Surgeon W. G. Stimpson, when relieved at Buffalo, N. Y., to proceed to Norfolk, Va., for temporary duty. August 5, 1890.